

NAVAL WAR COLLEGE
COLLEGE OF NAVAL WARFARE
AND
NAVAL COMMAND COLLEGE
JOINT MILITARY OPERATIONS
DEPARTMENT
SYLLABUS AND STUDY GUIDE

FOR

AUGUST 2011

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FOREWORD

This syllabus provides a comprehensive overview of the Naval War College's Joint Military Operations trimester. Prepared for the College of Naval Warfare and the Naval Command College, this syllabus, along with the JMO Website, provides session-by-session material to assist students in daily seminar preparation and in developing a personal plan of study. Administrative information is also included.

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JOINT MILITARY OPERATIONS DEPARTMENT

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JOINT MILITARY OPERATIONS COURSE DESCRIPTION

1. Mission

In keeping with the Naval War College (NWC) mission, the Joint Military Operations Department (JMO) curriculum is designed to educate senior leaders for service at the theater-strategic level of war—capable of recognizing the multi-faceted command and staff actions necessary for the linkage of ends, ways, and means in the attainment of strategic and operational objectives in peace and in war.

2. Course Overview

The Joint Military Operations trimester is intended to refine students' critical and creative thinking skills under the aegis of military problem solving. As such, the course is logically presented in a series of nested sessions, each intended to draw on those that preceded it and to reinforce those that follow. The faculty at the Naval War College realize that as senior officers you come with an understanding of many of the fundamentals of Joint Military Operations; however, we will focus on refining your higher order thinking skills through an academic regimen that incorporates evaluation, analysis, and synthesis. The trimester will flow from the simple to the more complex and will culminate in a synthesis event intended to allow students to display their understanding of the course concepts and to demonstrate critical and creative thinking skills. The JMO trimester is best captured by the titles of the various segments that make it up: The Introductory and Operational Warfare Theory Sessions, The Rational Analytical Processes of Military Problem Solving, Contemporary Operations and Environment, and the Capstone Synthesis Event. You will discern four themes that pervade the syllabus: operational art, problem framing, theater strategic leadership, and the impact of international law on the military planner and commander.

The Joint Military Operations course is an in-depth study of the theater-strategic and operational levels of war throughout the spectrum of conflict. This course builds on Joint Professional Military Education (JPME) Phase I as defined in the Officer Professional Military Education Policy (OPMEP), and complements the Naval War College's National Security Affairs (NSA) and Strategy and Policy (S&P) curricula. Where NSA and S&P emphasize our national imperative to select a strategy appropriate to our policy goals, the JMO course prepares students for the operational arena by emphasizing problem solving through operational planning and joint force application to achieve military objectives. It examines joint operations from the standpoint of the combatant commander (CCDR) and Joint Task Force (JTF) commander with a maritime emphasis. It further develops joint attitudes and perspectives, exposes officers to and increases their understanding of service cultures while concentrating on joint staff operations. Through extensive use of case studies, the JMO student is challenged with four enduring questions from the perspective of a joint force commander and staff:

- What conditions are required to achieve the objectives? (Ends)
- What sequence of actions is most likely to create those conditions? (Ways)

- What resources are required to accomplish that sequence of actions? (Means)
- What is the likely cost or risk in performing that sequence of actions?

The ability to answer these questions is the very essence of being able to plan and lead joint operations.

3. Course Objectives

The objectives below are provided to identify for the senior student the specific objectives that the JMO Department intends to achieve during the trimester. They are not to be confused with the Educational Outcomes listed in paragraph four below. The Educational Outcomes are those outcomes intended to be achieved at the completion of the Academic Year after students have had the opportunity to synthesize the education provided by all three academic departments. The Educational Outcomes may be viewed as the strategic objectives for the College. The below are the operational objectives we seek to achieve in JMO. Each individual session has tailored objectives that support those listed below.

- To enhance students ability to develop operational concepts, to adeptly apply joint planning processes, and to creatively leverage the instruments of national power across the spectrum of conflict in achieving assigned objectives.
- To strengthen senior leadership skills necessary to excel in major staff responsibilities and in theater-strategic positions of leadership, and to serve as trusted advisors to policy makers.
- To develop skilled senior war fighters, able to synthesize valid courses of action and to function in volatile, uncertain, complex, and ambiguous operating environments.
- To hone critical and creative thinking skills, especially the ability to develop and evaluate a range of potential solutions to ill-structured problems.

4. Naval War College and Naval Command College Educational Outcomes

The Professional Military Education (PME) outcomes for the College of Naval Warfare and Naval Command College are designed to produce officers fully capable of serving as leaders or principal staff officers at the theater-strategic and operational levels of war. The purpose of these educational outcomes is to develop students who are:

- Skilled in evaluating U. S. strategy and policy through the integrated employment of military and non-military instruments of national power.
- Skilled in joint war fighting, formulation of theater strategy, campaign design, and planning through the creative application of operational art.
- Adept at leading staff elements in the Joint Operation and Navy Planning Processes.
- Capable of strategically-minded critical thinking across the full spectrum of conflict and national security environments.
- Skilled in aligning and maximizing capabilities across joint force components, services, agencies, and international forces.

- Capable of excelling in positions of theater strategic leadership in peace, in crisis, and in war.

5. CJCS Officer Professional Military Education Policy

The 2007 National Defense Authorization Act: Section 529 revises the definition of joint matters to include the integrated use of military forces that may be conducted under unified action on land, sea, or in air or space, or in the information environment with participants from multiple armed forces, U. S. Armed Forces and other U. S. departments and agencies, U. S. Armed Forces and the military forces or agencies of other countries, U. S. Armed Forces and non-governmental persons or entities, or any combination thereof. Accordingly, for purposes of clarity, the term joint includes multinational and interagency partners.

The Chairman of the Joint Chiefs of Staff (CJCS) Instruction CJCSI 1800.01_ sets the policies, procedures, objectives, and responsibilities for both officer Professional Military Education (PME) and Joint Officer Professional Military Education (JPME). It directs the services and service colleges to comply with the Officer Professional Military Education Policy (OPMEP) by meeting Joint Learning Area (JLA) objectives defined in the OPMEP. The CNW NCC Syllabus for 2011 lists the Naval War College (NWC) objectives to be addressed in each session.

The below Senior Service-Level College (SLC) Joint Learning Area (JLA) objectives are presented to highlight to the student the linkage between the syllabus and Joint Learning Areas prescribed by the CJCS.

Learning Area 1 – National Security Strategy

- Apply key strategic concepts, critical thinking, and analytical frameworks to the formulation and evaluation of strategy.
- Evaluate historical and/or contemporary applications of national security strategy, to include the current U. S. national strategies.
- Apply appropriate strategic security policies, strategies, and guidance used in developing plans across the range of military operations to support national objectives.
- Analyze the integration of all instruments of national power in achieving strategic objectives.

Learning Area 2 – National Military Strategy

- Comprehend the art and science of developing, deploying, employing, and sustaining the military resources of the Nation, in conjunction with other instruments of national power, to attain national security objectives.
- Evaluate the national defense and military strategies and their supporting strategies.
- Evaluate how the capabilities and limitations of the U. S. force structure affect the development of joint military strategy.

Learning Area 3 - Joint Warfare, Theater Strategy, and Campaigning in a Joint, Interagency, Intergovernmental, and Multinational Environment

- Evaluate the principles of joint warfare, joint military doctrine, and emerging concepts in peace, crisis, war and post-conflict.

- b. Evaluate how campaigns and operations support national objectives and relate to the national strategic, national military strategic, theater strategic, and operational levels in war.
- c. Analyze how national military and joint theater strategies meet national strategic goals across the spectrum of conflict.
- d. Analyze the role and perspective of the combatant commander and staff in developing various theater policies, strategies, and plans, to include WMD/E, IO, cyberspace operations, SSTR, joint intelligence, joint logistics, and strategic communication.
- e. Apply an analytical framework that incorporates the role factors such as geopolitics, geostrategy, region, society, culture, and religion play in shaping the desired outcomes of policies, strategies, and campaigns.
- f. Analyze the integration of IO to theater campaign development.
- g. Apply the fundamentals of traditional and irregular warfare.

Learning Area 4 – National and Joint Planning Systems and Processes

- a. Analyze how the interagency and intergovernmental structures and processes influence the planning for and application of instruments of national power.
- b. Evaluate the DOD and interagency systems and processes by which national ends, ways, and means are reconciled, integrated, and applied.
- c. Analyze the principal joint strategy development and operational planning processes.

Learning Area 5 – Integration of Joint, Interagency, Intergovernmental, and Multinational Capabilities

- a. Analyze the roles, relationships, and functions within the national security and homeland security systems.
- b. Evaluate the capabilities and limitations of all Services and SOF in achieving strategic objectives in an integrated environment
- c. Evaluate the integration of joint, interagency, intergovernmental, and multinational capabilities across the range of military operations and plans.
- d. Analyze the attributes of the future joint force and how this force will organize, plan, prepare, and conduct operations.
- e. Develop a joint perspective on the increased power available to commanders in an integrated environment.

Learning Area 6 – Joint Strategic Leadership.

- a. Evaluate the skills needed to lead in a joint, intergovernmental, interagency, intergovernmental, and multinational strategic environment.
- b. Evaluate the skills, including strategic communication, needed to lead organizational change and transformation and to build and sustain innovative, agile, and ethical organizations in a joint, interagency, intergovernmental, and multinational environment.
- c. Evaluate critical thinking and decision making by strategic leaders.
- d. Evaluate the ethical and legal ramifications of specific historic or contemporary national security decisions.

6. Course Organization

The JMO trimester begins with a series of introductory sessions intended to prepare the intellectual battle space. These introductory sessions will be followed by a series of discussions in seminar on the theoretical underpinnings of Joint Military Operations as embodied in operational art. After students gain a deeper understanding of theory, the faculty will present some real-world constraints and restraints as we investigate the nexus of operational art and operational law. The senior student will then be provided the opportunity to consider the rational, analytical processes used by the United States Department of Defense in framing and solving military problems across the spectrum of conflict.

Once students have grasped the theoretical foundations and the processes necessary for success in the operating environment in which operational and theater-strategic military problems are solved, the faculty will continue to build on the foundation sessions. This area of the JMO syllabus will require students to question their roles in future military operations across the spectrum of conflict. Following a brief study of the modern operating environment and its ramifications for problem solving and planning, a practical exercise will put into perspective the theoretical concepts learned, the constraints and restraints imposed on military forces by political leadership and international law, and the various planning processes and will allow students to demonstrate their mastery of the material thus far.

The final event of the JMO trimester is a Capstone Synthesis Event intended to fuse all aspects of the trimester in a realistic scenario in which students will investigate issues and recommend solutions. At the conclusion of JMO, senior students should be capable of leading a Joint Planning Group in a problem solving endeavor, of fostering critical and creative thinking skills in subordinates, and demonstrating fluency in both operational art and joint terminology.

7. Syllabus Organization

This syllabus establishes the basis for required course work and serves as an intellectual roadmap that will guide you through the trimester. In each session, the *Focus* specifies the general context of the topic. Next, the *Objectives* section cites the session goals and provides an intellectual line of departure and focus to the readings. The *Background* section provides assistance in framing the individual session, that is, how it fits into the course flow and how each session relates to other sessions. The *Products* section identifies those items that may be produced in fulfillment of the learning objectives. The *Questions* section is designed to generate critical thinking and is the foundation of seminar discussion. The *Readings* section serves to focus student preparation and enhance understanding of each session's topic. Readings may or may not be directly discussed in session. The final section of each syllabus session recognizes that not all of the students participating in this JPME Phase II course have completed JPME Phase I. Thus, the *Phase I Prerequisite Instruction* section identifies course material that *must* be reviewed by students who have not completed a JPME Phase I course, are having difficulty understanding the material presented in the required reading,

or want a greater understanding of the session topic. These JPME Phase I requirements are located on the JMO Portal Website.

8. Methods of Instruction

(a) *The Socratic Method.* The seminar is the fundamental learning forum for this course with student expertise being a significant part of the learning process. For a seminar to succeed there must be open and candid sharing of ideas and experiences, tempered with necessary military decorum. Students will find that even the most unconventional idea may have some merit. Successful seminars—that is, seminars whose members leave with the greatest knowledge and personal satisfaction—are those made up of students who come to each session equipped with questions based on thorough preparation. Most students leave the seminar with new insights or even more thought-provoking questions. Student preparation, free and open discussion, and the open-minded consideration of other students' ideas, all contribute to a valuable seminar experience. The one-third rule is the keystone of the seminar approach. The first third is a well-constructed, relevant curriculum. The second third is a quality JMO faculty to present the material and guide the discussion, and the most important third is the participation of the individual students. Only by thoroughly preparing for seminar sessions can students become active catalysts who generate positive and proactive seminar interaction and refine critical and creative thinking skills.

(b) *The Case Study Method.* This method of instruction is used to provide intellectual stimulation for students and is designed to develop student abilities to analyze and solve problems using the knowledge, concepts, and skills honed during the trimester. A concomitant benefit of the case study is to deepen the experiential pool in students through analysis of past great captains of war or to expand the knowledge of a specific geographic area. Some of the cases and problems stress individual effort and planning, while others require a team or staff approach. Cases may consist of historical events, analyzed for operational and theater strategic sessions, or postulated crisis situations that demonstrate the application of concepts such as presence, deterrence, international law, rules of engagement, and self-defense. Case studies sometimes will be narrowly focused to illustrate a specific force and its capabilities and limitations or to highlight explicit concepts involving an aspect of theater strategic warfare. Seminars are often split into smaller groups or teams to prepare solutions and responses. The Case Study method of instruction allows students to achieve a higher level of learning while providing students with many more data points relevant to problem solving in the volatile, uncertain, complex, and ambiguous environment in which we operate. Students will be tasked with analyzing the case study material, synthesizing information, and evaluating recommended courses of action that they create.

(c) *The Lecture-Seminar Method.* In order to share equally the vast experience of some of our faculty members and guest speakers, lectures are scheduled to be followed immediately by seminar discussion. Students are encouraged to analyze critically the information presented by speakers and engage actively in post-speaker seminar

discussions. JMO lectures are intended to generate questions that the students may discuss in seminar and are not intended as merely the transmission of knowledge.

(d) *The Practical Exercise Method*. The opportunity for students to apply information presented in the various sessions is important. Practical Exercises allow students time to analyze critically information in order to develop viable solutions to ill-structured problems. Students may be assigned to practical exercise as individuals, small groups, seminar, or even multiple seminars.

9. Readings

All JMO Course sessions are supported by various readings. The purpose of these readings is to assist in understanding the many aspects of the topics being presented and often, to provide divergent points of view on the same topic. For the most part, the readings are intended to convey to the student basic information, the mastery of which will facilitate in-class discussions. Many of the readings provide point-counterpoint and are intended to foster discussion. Students are reminded, however, that as critical thinkers, all readings should be questioned concerning their relationship to the topic, to other readings, and to the personal experience of the student. A thorough understanding of the following information will significantly assist the student in using the course readings to best advantage:

(a) Categories of Readings. Each syllabus session lists categories of readings.

(1) *Required Readings* are those that must be read prior to the session. Moderators may offer additional guidance on the priority of the readings, based on the specific needs of the individual seminar. Readings are arranged alphabetically by author.

(2) *Supplementary Readings* are those relevant to a session topic that may be useful to a student seeking more information in order to gain insight beyond that provided by the Required Readings, as well as additional background material on case studies and exercises. On occasion, faculty moderators may assign Supplementary Readings to individual students to read and provide oral synopses to the seminar in support of topic discussion. Supplementary readings are likewise arranged alphabetically by author. The supplementary reading section serves an additional purpose in that students who find the individual session interesting may use it as an initial bibliography for paper research.

(b) Reading Identifiers. Each reading that is not a complete book or publication has a cover page that provides the four-digit reading identifier (e.g., NWC 1002). Oftentimes, this number is used instead of the title, but in either event, the readings are almost universally located on the JMO Portal Web site and issued iPad under the specific session.

(c) Finding Specific Readings. Readings for any specific session may be located as follows:

(1) Required Readings are annotated as (*Issued*) or (*Seminar Reserve*).

(a) (*Issued*) means that the readings may be found in the JMO reading material issued to each student at the beginning of the trimester in bound volumes and DVDs. Those Required Readings that are copyrighted are issued in a bound publication.

(b) (*Seminar Reserve*) means that the readings are located in the seminar classroom on the rolling book cart and quite often posted on the JMO Website.

(c) (*Posted on the JMO Portal Website*) means the readings are electronically maintained on the JMO Website. In most cases, paper copies of posted and linked reading material will not be provided.

(2) Supplementary Readings may be found in the library or through library web access. Assistance is available from the reference librarians. These supplementary readings may assist students in further research on a topic that interests them and often form an embryonic bibliography of the research paper. The point of contact (POC) identified for a given session can assist students experiencing difficulty in locating a particular reading.

(d) Management of the Reading Load. The amount of preparatory reading required for each session depends on a variety of factors, including topic complexity and session objectives. Students are advised to review lesson reading requirements at least one week in advance of lesson presentation date in order to plan preparation time accurately and to ensure that all necessary readings are on hand. Be ready to address queries on the content of the assigned readings and to question the contents vis-à-vis the subject under discussion.

10. Operations Research Paper

The Operations Research Paper presents an opportunity for students to study a real-world issue, to conduct research and analysis, and to prepare a paper that advances the literature and demonstrates critical thinking skills. It is a chance for students to address a topic that is current and tied to real-world issues that affect, or could potentially affect, U. S. national security. Students will be given directed research questions regarding a selected country that will be the Department's focus of effort for the Capstone Synthesis event. This research effort will be centered on two questions; a general questions of information that students, in selected groups of three, will analyze, and a second, individual research question upon which students will craft their research paper. It is the focused research question that students will have to translate into an approved thesis statement. Once the thesis is approved by the moderator team, students will then conduct research, analyze, and synthesize their findings in a paper. It requires independent thought and graduate-level writing because the final product must be a 14–17 page paper suitable for publication in a professional journal. As important, the knowledge gained through the voyage of discovery will support fellow students during the end of trimester Capstone Synthesis event. Student's will brief their papers to their colleagues and through this peer review; student's will be able to refine their paper prior to submission for grade. The amount and depth of research must be sufficient to support the planning effort in the Capstone, to inform fellow students, and to justify sufficiently the conclusions and recommendations contained in the paper. Since, papers will be used

to generate discussion during the Capstone Synthesis event, the effort, in effect creates a seminar of Subject Matter Experts (SME) in a given area. The papers will be collated by group and presented to students for future reference during the Capstone Synthesis event. Additionally, selected papers will be forwarded to appropriate Combatant Commands and / or Joint Task Force Commanders. Quality papers are retained in the Naval War College's Eccles Library, where qualified users can access them for use in a variety of applications.

Students are encouraged to submit their research papers for the Naval War College Prize Competition described in the Naval War College Standard Organization and Regulations Manual (SORM), included in the *Student Handbook*, and posted on the JMO Portal. Amplifying information and guidance on the selection and execution of a successful Operations Research Paper project is provided on the JMO Portal Website in the current edition of NWC 2062_. Moderators will serve as student paper advisors and answer questions and otherwise assist students in this most important intellectual undertaking. The Naval War College Writing Center of Excellence is yet another resource students may use while here at the War College.

11. Plagiarism and Misrepresentation

Student attention is directed to the Naval War College SORM and the Statement of Academic Policy (located under the references section of the JMO Web site), which discuss the academic honor code and specifically prohibit cheating, plagiarism, and misrepresentation. For the military officer accustomed to the legitimate staff practice of adopting verbatim the language of orders and directives produced by other commands, the academic prohibition of using the words of other writers without proper attribution must be reviewed and internalized. The following definitions clarify this important issue:

Plagiarism is the duplication of an author's words without both quotation marks and accurate references or footnotes. It is also the paraphrased use of an author's ideas without accurate references or footnotes. Generally, plagiarism results from one of two specific errors; the first is an incomplete knowledge of the requirements and methods of properly citing and giving credit to another. The second, and by far less common yet more deleterious, is the intentional copying of another's work.

Misrepresentation is defined as reusing a single paper for more than one purpose without permission or acknowledgment. It may include the following:

- Submitting a single paper or substantially the same paper for more than one course at the Naval War College without advance permission of the moderators.
- Submitting a paper or substantially the same paper previously prepared for some other purpose outside the Naval War College without acknowledging that it is an earlier work.

12. Requirements

Students are expected to prepare fully for each seminar and to participate in classroom discussions and exercises. A tough-minded, questioning attitude and a

willingness to enter into rigorous but disciplined discussion are central to the success of the course.

(a) Workload. Some peaks in the workload will occur. Advance planning and careful allocation of time will help mitigate these peaks. This is particularly true of the Operations Research Paper. This is a Masters Degree awarding course of study that confers that degree after one year of exceptionally rigorous study. As such, expect to commit significant time to reading and reflection. Student experience indicates that the total course requirements will involve a weekly average workload of approximately 12–15 hours of in-class and 36–45 hours of out-of-class work. Additionally, students should expect to dedicate 80-100 hours in researching, drafting, and producing an acceptable graduate-level research paper. Time management is a critical aspect of a student’s success in mastering the multiple requirements of the Joint Military Operations course. This syllabus is a powerful tool in that it allows students to develop a personal plan of study that leads to better time management and a deeper understanding of the syllabus material.

(b) Oral and Written Requirements. The JMO Department has oral and written requirements that provide the opportunity for the student to demonstrate synthesis and progress. In addition, these requirements serve as a means for feedback and interaction between the faculty and members of the seminar. Not all requirements are graded, but each provides the student with some measure of how he or she is doing at that point in the course. To successfully accomplish the JMO curriculum, students must complete the below requirements. The following is a composite listing of these course requirements, type of activity, relative weights, and the key dates of graded events:

Requirement	Type Effort	Weight	Date
Operational Art Exam	Written/Individual	15%	9 September
Seminar Contribution	Daily assessment	20%	17 Aug–30 Oct
Contemporary Op Exam	Written/Individual	20%	3 October
Operations Research Paper	Written/Individual	30%	28 October
CAPSTONE Contribution	Daily assessment	15%	31 Oct –10 Nov

13. JMO Department Grading Criteria

A course average grade of B- or higher is required for successful completion of Master’s degree requirements. A minimum grade of C- is required for successful completion of the JMO course and receipt of JPME Phase II certification.

The overall guidance for grading students at the Naval War College is contained in the Naval War College SORM. Any assigned grade may be appealed in writing within seven calendar days after receiving the grade. Grades will be appealed first to the student’s seminar senior moderator and then to the Department Chairman. If deemed necessary, the Chairman may assign an additional grader who will review the assignment and provide an independent grade. Grade appeals may ultimately be taken to the Dean of Academics, whose decision will be final. Note that the review may sustain, lower, or

raise the grade. The Academic Coordinator (Room C-214), can assist in preparing an appeal.

Per Naval War College Instruction 1520.2, Examination and Grading Policy, student work that is not completed will receive a numeric grade of zero (0). Unexcused tardy student work, that is, work turned in past the deadline without previous permission by the moderator, will receive a grade not greater than C+ (78). Student work determined to be in violation of the honor code will receive a grade of F with a corresponding numeric grade between 0 and 59 assigned. The College's Academic Integrity Board will assign this accompanying numeric grade to the F. Though it may not be applicable in all cases, a grade of zero (0) will be assigned as a matter of practice.

Four sets of general grading criteria help in the determination of the letter grades that will be assigned during the JMO trimester. The criteria below offer the student a suggestion of the standards and requirements by which faculty assess performance. Using the Naval War College SORM as basic guidance, the procedures below amplify the criteria as established within the Joint Military Operations Department. Of note, student grades will not be posted until students complete the end of course questionnaire.

a. Criteria for the Operations Paper Proposal:

While not a graded event, the Operations Paper Proposal is key to the successful production of a quality research paper. The Operations Paper Proposal is a formal proposal submitted by the student to his or her moderators. It is developed as a result of a number of discussions with the paper advisors and, if appropriate, subject matter experts in the student's chosen field of study. While the paper proposal does not factor into the student's overall grade, it requires the student to analyze the assigned research question, conduct an initial literature review, develop a sound thesis, describe your approach to the paper including mileposts for major accomplishments and review, and provide a research methodology. This proposal will conclude with a working bibliography for consideration by the moderator team. The proposal represents a contract between the student and moderator and is intended to make the research paper requirement a voyage of discovery in which the student gets an opportunity to expand his or her intellectual horizons. Essentially, students, after being given a research question, are expected to craft a valid thesis, conduct initial research, and propose a research methodology for moderator approval.

b. Grading criteria for the Operations Research Paper:

The Operations Research Paper must have a valid thesis, provide sufficient background research to analyze the thesis, may consider arguments and counter-arguments for the thesis, compare conflicting points of view, present logical conclusions drawn from the material presented, and provide recommendations or lessons learned based on the conclusions. Certain research papers, because of the nature of the assigned research question, may follow a slightly different flow. Students are reminded that their moderators serve as their research paper advisors and presentation of papers with different methodologies that argument counterargument will be approved by the moderator team. In addition to the examples of substantive criteria specified below, the

paper must be editorially correct (spelling, punctuation, grammar, syntax, format, and so forth).

- A+ (97-100):** Offers a genuinely new understanding of the subject. Especially deserving of distribution to appropriate authorities and submission for prize competition. Thesis is definitive, research is extensive, subject is treated completely, and the conclusions and recommendations are logical and justified.
- A (94-<97):** Work of superior quality that demonstrates a high degree of original thought. Suitable for distribution and submission for prize competition. Thesis is clearly articulated and focused, research is significant, arguments and counter-arguments are comprehensive, and conclusions and recommendations are supported.
- A- (90-<94):** Above the average expected of graduate work. Contains original thought. Should be retained in the Defense Technical Information Center (DTIC). Thesis is clearly defined, research is purposeful, arguments and counter-arguments are presented, conclusions and recommendations are valid.
- B+ (87-<90):** A solid paper. Above the average of graduate work. Thesis is articulated, research has strong points, subject is well-presented and constructed, and conclusions and recommendations are substantiated by the material.
- B (84-<87):** Average graduate-level performance. Thesis is presented, research is appropriate for the majority of the subject, analysis of the subject is valid with minor omissions and conclusions and recommendations are presented with few inconsistencies.
- B- (80-<84):** Below the average graduate-level performance. Thesis is presented, but the research does not fully support it; the analysis, conclusions, and recommendations are not fully developed. The paper may not be balanced and the logic may be flawed.
- C+ (77-<80):** Below the standards required of graduate work. Portions of the criteria are lacking or missing, the thesis may be unclear, research may be inadequate, analysis may be incomplete, and the conclusions and recommendations may be lacking or not supported by the material.
- C (74-<77):** Fails to meet the standards of graduate work. Thesis is present, but support, analysis, conclusions, and recommendations are either missing or illogically presented. Paper has significant flaws in construction and development.

- C- (70-<74):** Well below standards. Thesis poorly stated with minimal evidence of research and/or several missing requirements. Subject is presented in an incoherent manner that does not warrant serious consideration.
- D+ (67-<70)** Considerably below graduate-level performance and lacking in evidence
D (64-<67) of effort or understanding of the research process or academic rigor. In
D- (60-<64) some measures, fails to adequately address thesis, research question, draw logical conclusions.
- F (0-<59):** Fails to meet graduate-level standards. Unsatisfactory work. Paper has no thesis. Paper has significant flaws in respect to structure, grammar, and logic. Paper displays an apparent lack of effort to achieve the course requirements. Gross errors in construction and development detract from readability of the paper. Paper displays evidence of plagiarism or misrepresentation.

c. Grading criteria for exams:

The Operational Art examination usually focuses on an historic case study. Moderators will provide read ahead material in advance of the exam date. The Midterm examination is an open-book examination that requires individual work. The exam will focus on aspects presented thus far in the course. Responses to both of these examinations will be in essay format. Grading will be assessed using the following criteria:

- A+ (97-100):** Organized, coherent and well-written response. Completely addresses the question. Covers all applicable major and key minor points. Demonstrates total grasp and comprehension of the topic.
- A (94-<97):** Demonstrates an excellent grasp of the topic, addressing all major issues and key minor points. Organized, coherent, and well-written.
- A- (90-<94):** Above the average expected of graduate work. Demonstrates a very good grasp of the topic. Addresses all major and at least some minor points in a clear, coherent manner.
- B+ (87-<90):** Well-crafted answer that discusses all relevant important concepts with supporting rationale for analysis.
- B (84-<87):** Average graduate performance. A successful consideration of the topic overall, but either lacking depth or containing statements for which the supporting rationale is not sufficiently argued.
- B- (80-<84):** Addresses the question and demonstrates a fair understanding of the topic, but does not address all key concepts and is weak in rationale and clarity.

- C+ (77-<80):** Demonstrates some grasp of topic, but provides insufficient rationale for response and misses major elements or concepts. Does not merit graduate credit.
- C (74-<77):** Demonstrates poor understanding of the topic. Provides marginal support for response. Misses major elements or concepts.
- C- (70-<72):** Addresses the question, but does not provide sufficient discussion to demonstrate adequate understanding of the topic.
- D+ (67-<70)** Considerably below graduate-level performance and lacking in any
D (64-<67) evidence of effort or understanding of the subject matter. In some
D- (60-<64) measures, fails to address the entire question.
- F (0-<59):** Unsatisfactory work. Fails to address the questions or paper displays evidence of plagiarism or misrepresentation.

d. Grading criteria for seminar and Capstone Synthesis Event contributions:

The seminar and joint planning exercise contribution grades are determined by moderator evaluation of the quality of a student's contributions to seminar discussions, projects, and exercises. Because the student's themselves are the SME or the Capstone, the quality of their paper briefs will be a contributing factor to the Capstone Synthesis event grade. All students are expected to contribute to each seminar session, and to listen and respond respectfully when seminar mates or moderators offer their ideas. This overall expectation underlies all criteria described below:

- A+ (97-100):** Peerless demonstration of wholly thorough preparation for individual seminar sessions. Consistently contributes original and highly insightful thought. Exceptional team player and leader.
- A (94-<97):** Superior demonstration of complete preparation for individual sessions. Frequently offers original and well thought-out insights. Routinely takes the lead to accomplish team projects.
- A- (90-<94):** Excellent demonstration of preparation for individual sessions. Contributes original, well-developed insights in the majority of seminar sessions. Often takes the lead to accomplish team projects.
- B+ (87-<90):** Above-average graduate level preparation for seminar sessions. Occasionally contributes original and well-developed insights. Obvious team player who sometimes takes the lead for team projects.
- B (84-<87):** Average graduate level preparation for individual sessions. Occasionally contributes original and insightful thought. Acceptable team player; takes effective lead on team projects when assigned.

- B- (80-<84):** Minimally acceptable graduate level preparation for individual sessions. Infrequently contributes well-developed insights; may sometimes speak out without having thought through an issue. Requires prodding to take lead on team projects.
- C+ (77-<80):** Generally prepared, but not to minimum acceptable graduate level. Requires encouragement to contribute to discussions; contributions do not include original thinking or insights. Routinely allows others to take the lead in team projects.
- C (74-<77):** Preparation for individual sessions is only displayed when student is called upon to contribute. Elicited contributions reflect at best a basic understanding of session material. Consistently requires encouragement or prodding to take on fair share of team project workload. Only occasionally engages in seminar dialogue with peers and moderators.
- C- (70-<74):** Barely acceptable preparation. Contributions are extremely limited, rarely voluntary, and reflect minimal grasp of session material. Displays little interest in contributing to team projects.
- D+ (67-<70)** Rarely prepared or engaged. Contributions are uncommon and reflect
D (64-<67) below-minimum acceptable understanding of lesson material. Engages in
D- (60-<64) frequent fact-free conversation.
- F (0–59):** Unacceptable preparation. Displays no interest in contributing to team projects; cannot be relied on to accomplish assigned project work. At times may be seen by peers as disruptive.

14. Seminar Assignments

The principal criteria in assigning students to a seminar are a balanced distribution among services and agencies, essentially creating a ‘joint force’, as well as student specialties and operational expertise. The Chairman of the JMO Department will assign a minimum of two faculty members to each seminar. The Chairman will also publish separately the student seminar and classroom assignments.

15. Schedule

Seminars may meet in the mornings and in the afternoons. Depending on the work assigned, students may meet for scheduled periods in seminar as a group, in smaller teams depending on tasking, or conduct individual study and research. Students should pay close attention to the start times for each event since they may vary throughout the trimester. Classes normally are scheduled from 0830–1145 and 1300–1630. Moderators may adjust these times to facilitate the learning objectives for each segment of instruction. A course-planning schedule containing meeting dates and times is provided on the JMO Website. Late changes will be announced by the moderators in class and

posted to the JMO Website under the Announcements section and students will be provided weekly schedules in their mailboxes. Be aware, however, that changes to the schedule occur and these changes will be announced by moderators, on the Website and/or by email.

16. Key Personnel

If you require additional information on the course, or if problems develop that cannot be resolved by your moderators, you may contact the Chairman or the Executive Assistant. Key departmental personnel are:

Chairman	PROF James Cook (USN, Ret)) Room C-213, 841-3556
Executive Assistant	PROF F. B. Horne (USN (Ret)) Room C-211, 841-6458
Academic Coordinator	Ms. Susan Soderlund Room C-214, 841-4120
CNW & NCC Course Coordinator	PROF Bill Hartig (USMC (Ret)) Room C-428, 841-6470
Coordinator, Introductory Sessions and Operational Warfare Theory Sessions	PROF Doug Hime (USAF (Ret)) Room C-423, 841-6463
Coordinator, Planning Sessions	PROF Pat Sweeney (USA (Ret)) Room C-424, 841-6480
Coordinator, Contemporary Operations & Environments Sessions	PROF Dick Crowell (USN (Ret)) Room C-421, 841-2598
Coordinator, Capstone Synthesis Event	PROF Mark Seaman (USN, Ret)) Room C-428, 841-7297

17. Faculty Assistance

Faculty members are available to assist students with course material, to review a student's progress, and to provide counseling as required or requested. Students with individual concerns are encouraged to discuss them as early as possible so that faculty moderators can render assistance in a timely manner. We strongly urge students to make use of this non-classroom time with the faculty. During tutorials, scheduled in conjunction with the Operations Research Paper, moderators may take the opportunity to discuss student progress as well as to solicit student input on the course to date. The faculty is located on the fourth deck of Conolly Hall and is available to assist as needed.

18. Student Critiques

The Joint Military Operations Department strives continually to improve this course. To assist in this goal, students are required to complete a confidential End-of-Course Questionnaire that is submitted electronically. Submit your questionnaire not later than the CAPSTONE “hot wash.” Students are encouraged to point out areas for improvement immediately and not to wait until the end of course questionnaire.

The course questionnaire is designed to allow students to criticize constructively the JMO trimesters content, pacing, reading loads, and so forth. It is not intended as a ‘gripe sheet’ but rather seeks your input in order to better the course for the following year’s students. As such, students are strongly encouraged to maintain this questionnaire as if it were a diary. It is much easier capturing your thoughts when they are fresh rather than to try to recreate them at the end of the trimester. Your constructive comments will help ensure that the course remains relevant and vital in the years to come. The release of student grades is contingent on completion of the critique.

19. Faculty Biographies. Faculty biographies are posted on the JMO Portal Website.

20. Course Calendar. A course calendar is included at the end of this syllabus. Be forewarned, however, that this calendar is subject to change. Changes will be announced by the moderators and posted on the Portal Website as they arise.

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