The Dwight D. Eisenhower School for National Security and Resource Strategy

Industry Studies Handbook

FOREWORD

November 2016

To Industry Studies Students and Faculty,

The Industry Studies Handbook provides direction and policy guidance to facilitate the planning, coordination, and execution of the Eisenhower School (ES) Industry Studies Program. The information contained in this handbook is intended to supplement the teaching material prepared by the faculty for each industry study seminar. In all cases existing policies (to include, but not limited to, the ES Student and Faculty Handbooks, Joint Travel Regulations (JTR), DoD Financial Management Regulation (DoD FMR) (DoD 7000.14-R), and applicable NDU policies), take precedence over the guidance contained herein.

Please take the time to read this handbook, so you will know where to find answers to your questions as they arise throughout the course of the AY 2016-2017 Industry Studies Program. Suggestions for the correction and improvement of this handbook are welcome and should be communicated directly to the Industry Studies Program Director at john.meier@ndu.edu.

I wish you a challenging and rewarding industry study experience.

John G. Meier III
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Director, Industry Studies Program
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Section 1  
Overview of the Industry Studies Program

1. Why Study Industry and Markets Important to National Security Resourcing?  The federal government relies predominately – though not exclusively – on domestic and global markets to supply the goods and services it uses in performing national security missions. Some goods and services needed for national security are directly available from commercial markets. Others are not and the government must undertake extensive measures to create and maintain markets or in-house organizations capable of supplying goods and services unique to national security needs. Even when required goods and services are commercially available, “security of information” and “security of supply” concerns often force the government to interact with markets in ways very different from other buyers. As the sole consumer of goods and services unique to national security, the government must also sponsor the development of technologies important to national security when firms lack a commercial incentive to invest in such innovation. The political-economy of government decision-making further distinguishes the behavior of markets unique to national security from most commercial markets. Decision-making by multiple principals in a shared powers political system often results in complex government policies intended to address a myriad of competing stakeholder interests related to markets critical to national security. Given the importance of industry and markets to national security resourcing, strategic leaders must be well educated in industrial organization, market dynamics, and political economy. Accordingly, the mission of the National Security and Industrial Base Department is to: produce strategic leaders who understand and can interact effectively with industry and markets in acquiring the goods and services used by the federal government in performing national security missions. In pursuit of achieving this outcome, the Eisenhower School (ES) executes an Industry Studies Program (ISP) to equip students with the knowledge, intellectual skills, and creative abilities to effectively interact with industry and markets in a political-economic environment.

2. Industry Studies Program Purpose. In accordance with the guidance provided in CJCSI 1800.01E (OPMEP) (reference CJCSI 1800.01E Learning Area (LA) 3) (29 May 2015), the ES ISP is a course of study that provides intensive interaction with industry for the purpose of providing students with (1) the knowledge, understanding, and frameworks to analyze and assess firms, markets, and industry institutions; (2) the critical thinking skills necessary to rigorously evaluate government policies pertaining to markets essential to resourcing national security; ultimately producing, as part of the integrated ES curriculum, graduates with (3) the ability to create politically feasible and resource-informed strategies for implementing more effective government policy related to national security resourcing.

3. Industry Study Program Learning Objectives. In pursuit of achieving the ISP purpose, the learning objectives (LO) for the ES ISP are for students to:

   a. **LO 1.** Demonstrate the ability to apply the frameworks, models, and methodologies of industry analysis to evaluate the structure, conduct, and performance of select industries (U.S. and global).

   b. **LO 2.** Evaluate the strengths, vulnerabilities, and capabilities of select industries (U.S. and global) to contribute to the nation’s economic welfare and national security requirements.
c. **LO 3.** Evaluate how select U.S. and global firms and organizations interact with governments to influence laws, policies, and regulations.

d. **LO 4.** Analyze the political and economic interactions and trade-offs in developing (U.S. and global) trade, logistics and acquisition policies and processes and the impact in shaping, developing and regulating the capacity of industry to contribute to economic welfare and satisfy national security capability requirements.

e. **LO 5.** Evaluate government-business relations in support of, and their effect on, the management of the DOD resource allocation process and the resulting ability of select industries (U.S. and global) to satisfy national security capability requirements.

f. **LO 6.** Evaluate how the geostrategic context (to include a nation’s history, geography, natural resources, cultural identity, governance, macro-economic policy, security interests) and the government-business environment shape the U.S. and other select countries’ defense industrial bases (DIB), and the resulting approaches to integrating strategy and resources to satisfy national security capability requirements.

g. **LO 7.** Develop politically and resource-informed policy recommendations to improve U.S. national security requirements and economic interests.

4. **Academic Framework.** In keeping with the legacy left to Eisenhower School (ES) by Bernard Baruch, Chairman of the War Industries Board, World War I, whose vision was “to establish a little school...to preserve experience and keep in touch with industry”, the Industry Studies Program (ISP) remains a cornerstone of the ES curriculum. The ISP provides an in-depth study of the national and global resource base, consisting of lessons on business strategy and analytics, the international comparative economic environment, industrial base policy, and policy implications. The program of study provides students an analytic framework to examine selected strategic industrial sectors, with a focus on how industries support the domestic and global industrial bases, domestic and global business, and their individual and collective role in supporting the resource requirements of national security.

Through analysis of industry, students should draw on all they have learned throughout the academic year in all of their core courses and electives. Through practical application of economics, national security strategy, military strategy, acquisition, strategic leadership, and industry analytics, each student experiences dealing with a broad range of strategic issues common to most, if not all, industries. Each seminar is organized around a series of classroom sessions, local visits, and global field studies (both domestic and international visits) to conduct research directly supporting the seminar’s focus. The individual seminar classroom sessions vary in focus and content as per the academic framework identified in each IS program of study. The IS faculty teaching team invites industry, government and academic authorities to meet with students in the classroom. Additionally, some of the seminar periods are used for student- or faculty-led discussions to focus the seminar’s approach to industry analysis, to clarify or identify issues, and to go on information-gathering visits to local area government agencies, business establishments and other relevant sources.
The ISP achieves the educational goals identified in section 1, paragraph 2 above, by having each seminar study the structure, conduct, and performance of a given industry (and its firms, markets, and institutions) relevant to national security resourcing. Students study their given industry by combining individual and seminar learning with classroom engagements with industry representatives and extensive field study. During field study, students visit industry locations, observe industry activities, and interact with industry practitioners and leaders. The international field study component of the program adds the global dimension of comparative industrial analysis. Students synthesize their learning and develop policy recommendations by writing a seminar paper and briefing senior government and industry leaders on their analysis, evaluations, and proposed changes to policy.

a. Industry Study Seminars. The individual IS seminar program of study provides an analytic framework to examine selected strategic industrial sectors, with a focus on national security-related industries (currently 20), of the domestic and global industrial base and their role in supporting the resource requirements of national security. This process develops the student’s strategic perspective on the U.S. and global industrial base and its role in supporting the resource requirements of national security. Additionally, while each IS seminar examines a distinct “industry” as a focus for learning, the ISP philosophy is that the detailed analysis of a specific industry will provide generalizable knowledge and understanding of interplay of government, industry and markets in providing the goods and services required to resource national security. For AY2017, the ISP will focus on the following industries (please see Appendix A for an overview of each industry study):

<table>
<thead>
<tr>
<th>Advanced Manufacturing</th>
<th>Information &amp; Communications Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agribusiness</td>
<td>Land Combat Systems</td>
</tr>
<tr>
<td>Aircraft</td>
<td>Private Sector Support &amp; Services</td>
</tr>
<tr>
<td>Biotechnology</td>
<td>Reconstruction</td>
</tr>
<tr>
<td>Education</td>
<td>Robotics &amp; Autonomous Systems</td>
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<tr>
<td>Electronics</td>
<td>Shipbuilding</td>
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<tr>
<td>Energy</td>
<td>Space</td>
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<tr>
<td>Environment</td>
<td>Strategic Materials</td>
</tr>
<tr>
<td>Financial Services</td>
<td>Transportation</td>
</tr>
<tr>
<td>Health Care</td>
<td>Weapons</td>
</tr>
</tbody>
</table>

Throughout the ISP, students not only study a particular industry, but also how to learn about industry in general. To implement this methodology, the IS Program is composed of two courses: Industry Analytics and Industry Studies.

b. Industry Analytics Course. Industry Analytics (IA) is a critical component of the ISP and complements the IS course by: (1) equipping students with tools to analyze the health of an industry from multiple perspectives; (2) identifying challenges faced by an industry, and then (3) using these analyses to develop fact-based policy prescriptions for the industry to improve or sustain its ability to meet U.S. national security requirements in light of market realities. The course first examines industry health from a top-down, micro-economics perspective. Once developed, students use that perspective for an analysis of select industry firms, with the intent to
better understand how they think, compete, and react to incentives. Firm analysis captures the often unique (from policy makers’) perspectives and insights on industry health, allowing students to better determine what can be achieved with public policy and recommend the best possible way to construct future policy to improve the industry’s contribution to national security. A separate course overview, syllabi, and student assessment rubrics will be provided for the IA course.

**Note:** As a key part of the Industry Studies Program, it is essential that all seminars use the frameworks and concepts provided by the IA course when writing the Industry Report and developing the final seminar briefs.

c. **Industry Studies Course.** Given the founding vision of establishing a school “to keep in touch with industry,” the Industry Studies (IS) course, remains a cornerstone of the ES curriculum. The IS course provides an in-depth study of the national and global resource base combining lectures, Socratic seminar discussions, experiential field studies, post-visit analysis and evaluation, and individual research presented in a variety of written and oral reports. Each IS seminar examines a distinct “industry” as a focus for learning and conducts detailed analyses of that industry, its various components, and the markets it participates in. Students gain generalizable knowledge and understanding of industry perspectives on value creation, interaction with government, and responses to government actions to regulate and draw resources from industry. Graduates will be comfortable working within the government-private sector interface based on their knowledge and experience gained in the course.

1) **Field Studies.** The field studies portion of each industry study is an integral part of the curriculum and is an essential element to achieving the objectives of the ES mission. The field study practicums provide ES students an opportunity to visit prime and subcontractor corporate headquarters, production facilities, government activities, labor union organizations, trade associations, logistics and distribution facilities, financial institutions, and research labs. Students directly observe managerial processes and policy implementation in operational settings, as well as engage in meaningful exchanges with industry executives and government experts concerning subjects students have explored in the classroom and through their independent research. Critical to achieving the ISP learning objectives, the international field study practicums add the global dimension of comparative industrial analysis, permitting a realistic assessment of the relative performance of U.S. industry and the U.S. economy in a competitive world, while using the “lens of industry” to better understand global views of the U.S. and the associated political, economic, cultural, and security implications.

2) **Seminar Sessions.** Seminar sessions will be conducted to support the individual IS program of study with progressively structured syllabi that divide the program into distinct study and reporting phases.

a) **First Seminar Session (IS-1) – Thursday, 1 December 2016.** This session sets the tone for the seminar’s subsequent efforts and establishes a shared expectation concerning roles and responsibilities, milestones, and planning goals.
1. Purpose. To provide an introduction to the purpose, procedures and expected results from seminar’s industry study.

2. Lesson Objectives.
   • Introduction of the faculty teaching team and students.
   • A discussion of the objectives and general methodology of the program of study.
   • Specific instruction on seminar administration and field study procedures.
   • Overview of the industry program relative to the ES curriculum.
   • Statement of specific objectives, expected outcomes and individual and collective responsibilities.

3. Issues for Consideration.
   • How best to organize the seminar for success.
   • How the available funds will best be utilized to provide for maximum learning.

b) Subsequent Seminar Sessions (IS-2 – IS-37).

1. Purpose. To build a body of knowledge and to develop analytic skills.

2. Lesson Objectives. The IS teaching team will prepare lesson syllabi, which will identify specific lesson objectives for all subsequent IS sessions.

3. Content / Issues for Consideration. In accordance with the individual IS program of study, and consistent with achieving the IS program goals and learning objectives, subsequent IS lessons could include, but are not limited to, the following (in the context of both U.S. and international industries):
   • Tutorials, processing and synthesis sessions designed to establish a common understanding from which students who have widely diverse backgrounds and interests may successfully proceed with the program of study.
   • The development of an analytical framework and supporting methods that will be used to conduct the Industry Study.
   • An assessment of the effect on the industry of declining defense budgets.
   • Role of Congress in developing, resourcing and executing national strategy.
   • The impact of the growing threat of cyber-attacks on government and industry and the role of the US government in supporting resiliency efforts.
   • Effect upon your industry of the changing world events and global security issues; effectiveness of your industry’s and the government’s response.
   • Strategies of the industry to remain in the competitive lead (both domestic and international portions) far into the 21st century.
   • Perceived strengths and weaknesses in the industrial base; for example, human resources, raw materials, technology, finance, and pacing items.
   • Major problems, related goals, and strategies for optimizing performance in the industry under analysis.
   • Future trends in the industry under study and the potential contribution of the
industry to US national security.

- Problems involved in the acquisition process; such as burdensome regulations, declining budgets, and transition to new and different warfighting scenarios.
- Problems involved in broadening the production base and planning preparedness for war production.
- Mobilization, surge potential, and capability to respond to demand or reconstitution.
- Policy options for strengthening the production base and improving the acquisition system's relationship with the base.
- International (economic, political and social factors) aspects of the industry and their effects on strategy and decision-making.
- Strategic need for increased international trade and the effect of increased international competition.
- Constraints upon international trade and competition, including technology transfer policy issues.
- The ethical dimension of business leadership and ethical conduct and their effect on the ability of industry to fully serve the national security strategy.

3) Industry Studies Course Student Deliverables. Student deliverables for the Industry Studies course are as follows:

a) Individual Paper. All students are required to write a 10 page individual Industry Study issue paper. These papers require a thorough literature review to enable analysis of recent writings on topics of major interest to the industry sector under study. The individual paper is integral to the group's contribution to the body of knowledge on the industry. No one is excused from this requirement.

1. Objective. A primary goal of your year at ES is to help you make better decisions and give better national policy advice concerning the resource component of national security. The Industry Study paper is designed to give you an opportunity to practice those strategic thinking skills. Specifically, you will write an Issue Paper on a major policy issue related to the industry you are studying in the Industry Studies Program. In so doing, you will have an opportunity to sharpen your thinking about marketplace and public sector resource allocation in support of national strategy by analyzing a difficult issue facing a segment of the nation's industry base. The paper is also an opportunity to produce high quality, potentially useful advice for senior-level decision makers, in that your ideas may be incorporated in your group's Industry Report that is published on the ES website and available throughout the defense community after you graduate. Finally, this paper is a vehicle to educate yourself on some critical aspect of the industry you are studying, and by doing so, you will enhance your ability to interact with senior officials, domestic and international, in that industry.

2. Guidance. Your Industry Study faculty lead will discuss and/or distribute a list of candidate issues; you have the option of selecting an issue from that list or proposing a different one. For clarity, we suggest you consider using subsections that 1) provide a brief background, 2) develop viable alternatives, 3) evaluate options, and 4) build to a policy recommendation with supporting rationale. Additionally, individual papers of merit will
include a strategic perspective of the industry issue and its relationship to national security, will include economic and resource aspects, be well researched and documented, and base recommendations on sound logic and analysis of industry metrics. In bringing to bear your entire experience at ES, you should ensure that you consider the political, social, economic, and military dimensions of the issue you address.

3. Formatting. As per the ES Research and Writing Handbook, follow The Chicago Manual of Style (hereafter referred to as Chicago). There’s a copy in each student room, along with The Brief Handbook, which also contains abbreviated directions for Chicago style.

4. Due Date. Papers are due April 20, 2017. All changes to the required due date require prior approval from the ISP Director.

5. The Lockwood Award will be awarded annually to the best individual Industry Study paper (please refer to Section 1, paragraph 5.b. of this handbook for additional details).

b) Industry Report (written and oral briefs). At the conclusion of field studies, each seminar collectively develops a written report and accompanying briefings of publishable quality. Together, the report and briefings provide a comprehensive overview of the status of the industry studied and the strategic policy implications at the executive level. Both the written report and the briefings shall address, at a minimum:

- Definition of the industry studied, its current condition, challenges and outlook
- Importance of the industry studied to national security
- Surge and mobilization issues and applicable policy implications
- Assessment of appropriate government acquisition system changes to enhance the US Government's ability to acquire and utilize rapidly the latest commercial technologies
- Relevant government policy recommendations to enhance industrial effectiveness

Note: The ES non-attribution policy applies to the industry reports and briefings. All industry reports and briefings shall contain composite information only; neither company-specific nor proprietary information will be included.

1. Written Industry Report. Each seminar will prepare a comprehensive written Industry Report, which includes a ten-page Executive Summary and a series of “key industry and stakeholder issues”. The latter maybe derived in part from the individual industry issue papers that each seminar member completes. Industry reports should achieve a level of quality and rigor such that they are publishable. Industry reports will include thorough but concise analysis, using the frameworks and concepts studied in the spring Industry Analytics course, and those developed by the IS faculty team. These approaches will be essential to integration of findings from the program of guest speakers, domestic and international field studies and individual and group research, developing conclusions and recommendations for consideration by appropriate government departments and agencies. Please refer to Appendix B for specifics on the required format. All industry reports are posted to the ES website following an NDU
Public Affairs and an Office of Secretary of Defense (OSD) clearance review. Industry Reports are due to the IS faculty teaching team NLT May 12, 2017 and to the ISP Director NLT May 17, 2017.

2. Industry Briefings. Industry Study seminars will make professional quality oral presentations to the other ES IS seminars and teaching teams (“crossbriefs”) and a formal briefing to invited distinguished visitors (“DV briefs”), which serves as the capstone event of the IS experience. Presentations will be in the form of a briefing suitable to be given to a government or industry executive, e.g. the Under Secretary of Defense (AT&L), and will highlight critical analysis, conclusions, and recommendations, followed by a question and answer session. Briefings may include suitable film clips, photos and anecdotes where they enhance the professional quality of the presentation and simultaneously add to the overall understanding of the material being presented. The bottom line is that the quality and depth of analysis is primary, not the quality or sophistication of the graphics. Each briefing is 30 minutes, followed by a 20-minute question and answer (Q&A) period. Each seminar member is expected to present or co-present in teams of two or three at least one briefing. During the cross-briefs, students are expected to participate in the Q&A session and make positive contributions to the crossbrief processing. Additionally, the seminar will prepare a written script plus a set of briefing notes for individual briefers to use. Briefers may use either the notes or the script, but the briefing is strictly limited to 30 minutes in order to allow sufficient time for Q&A. A detailed briefing schedule will be provided prior to field studies. IS faculty Leads will provide a copies of the briefs to the ISP Director NLT 24 hours prior to the scheduled seminar crossbriefs and a copy of the DV brief NLT May 26, 2017.

3. A suggested quality control checklist for your Industry Report and briefings is provide in Table 1:

<table>
<thead>
<tr>
<th>Table 1: Suggested Checklist for Industry Report &amp; Briefings</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ Is the report well written, balanced and suitable for presentation to an executive at the level of the Secretary of Defense?</td>
</tr>
<tr>
<td>✔ Do you define your industry?</td>
</tr>
<tr>
<td>✔ Does your report analyze your industry in a global context?</td>
</tr>
<tr>
<td>✔ Does the economic health analysis reflect a full S-C-P view of the industry and its key firms, incorporating as appropriate Five Forces, Strategic Game Board, and financial analysis tools studied in your Industry Analytics classes?</td>
</tr>
<tr>
<td>✔ Do you state and answer the big questions about your industry?</td>
</tr>
<tr>
<td>✔ Do you include descriptions and industry analysis reflecting both the domestic and foreign visits your group made?</td>
</tr>
<tr>
<td>✔ Is there a reasonable report balance between description (usually too much) and analysis (usually too little)?</td>
</tr>
<tr>
<td>✔ Do you address the national security implications of your industry's current and future condition, your industry’s challenges, and government’s role?</td>
</tr>
<tr>
<td>✔ Are your policy recommendations realistic and achievable within our system of government? Are your recommendations based on facts and analysis provided in the analytical sections of the report?</td>
</tr>
<tr>
<td>✔ Do you provide appropriate citations and references?</td>
</tr>
</tbody>
</table>
4) Industry Studies Course Student Assessment.
   
a) Student IS grades will be based on the following; IS Leads, with the prior approval of the ISP Director, may modify the below:
   
   • Individual Paper 30%
   • Seminar Contribution 30%
   • Group Products (Industry Report, Cross and DV briefs) 40%
   
b) Assessment rubrics for the above deliverables and assessments will be posted to Blackboard.

5. Industry Study Program Awards.
   
a. The Antonelli Award. The Association of ICAF and ES Alumni established the Major General Theodore Antonelli Award for Industry Study Excellence in 1993. The annual award recognizes the Industry Study seminar Industry Report that best reflects the level of analysis and “strategic thought” expected of graduates of ES. The selection committee, comprised of senior faculty with extensive IS experience, chaired by the ISP Director, reviews all Industry Reports nominated by the faculty IS Leads. Award criteria are based on the guidance contained in this Handbook, please refer to Section 1, paragraph 5.a. and Appendix B. The award is presented at the awards ceremony at the end of the academic year; the selected seminar's name and the year of award are engraved on the Antonelli plaque, which is permanently displayed at ES.

   b. The Lockwood Award. The Lockwood Award is an endowed award sponsored by the Association for Intelligence Officers (AFIO) and recognizes the best individual IS issue paper. The award is named in honor of Mr. Earl Forrest “Frosty” Lockwood, co-founder and former Chairman, President and CEO of Betac International Corporation, a systems engineering and information technology services firm that specialized in providing a wide range of systems integration, counterintelligence, and counterterrorism solutions to the Intelligence Community. Each IS seminar faculty teaching team will nominate a single paper from each seminar as a candidate for the Lockwood Award. A panel of faculty judges will select the winning paper from the candidates nominated. The award recipient is announced at the annual ES Awards Ceremony in June. Lockwood Award nominees are due to the ISP Director NLT May 5, 2017.

   c. National Defense Industrial Association (NDIA) Award for Excellence in Research and Writing. The NDIA Award is sponsored by the National Defense Industrial Association to recognize the individual student paper that best informs, educates, and advances the discussion of the capability of the U.S. DIB to enhance security through the resourcing of our national security. Specifically, the award seeks papers that advocate for an innovative solution to a US DIB problem. A panel of faculty judges will select the winning paper from the candidates nominated. The award recipient will be announced at the annual ES Awards Ceremony in June. NDIA Award nominees are due to the ISP Director NLT May 5, 2017.

   
   • * 20 April 2017: Individual IS issue paper due to IS faculty team.
   • 5 May 2017 (NLT 1200): Lockwood Award nominees due to ISP Director.
• 5 May 2017 (NLT 1200): NDIA Award nominees due to ISP Director.
• * 12 May 2017: Industry Report due to IS faculty team.
• 17 May 2017 (NLT 1200): Industry Report due to the ISP Director.
• 19-25 May 2016: Seminar Crossbriefs – copy of each seminar’s brief due to ISP Director NLT 24 hours prior to scheduled seminar crossbrief.
• 26 May 2016: Copy of DV brief due to ISP Director.
• 31 May 2016: IS Distinguished Visitor Briefs
• 5 June 2016: Publication-ready copy of the Industry Report due to the ISP Director.
• 9 June 2016: Industry Reports submitted to NDU PAO for OSD security review.

* IS Leads may adjust due date with prior coordination, and approval, from, the ISP Director.
Section 2
General Field Studies Policies and Travel Guidelines

1. General. Please remember that our Field Studies hosts are expending considerable time, energy and money on our behalf. We need to always be regarded as gracious and grateful guests so that ES classes will be welcomed back.


   a. Conduct. At all times, conduct is to be professional. This includes all site visits, travel to and between sites, and off-duty hours. The faculty IS Lead, regardless of rank or position, is the person in charge of all aspects of field studies and has the full authority of the ES Commandant to ensure a successful field studies experience.

   b. Non-attribution. The ES non-attribution policy applies to **ALL** field studies as well as classroom seminars and Baruch presentations.

   c. Scheduling Field Studies Travel. Daily itineraries/schedules for field studies will be planned to ensure all field studies activities take place during the scheduled academic period, to include all travel and transit time, and will include time for meals (as appropriate) – deviations from the published academic calendar require a schedule exception request. Careful consideration and risk analysis must be given to planning any travel or events on the same day following completion of extended air travel or travel outside the scheduled academic period. Faculty and students will not be asked to drive vehicles – POV or rental cars – significant distances following extended periods of air travel or following a full day of field studies activities; reasonable requests for exceptions will be considered, but safety of all travelers is paramount. In addition, the Eisenhower School policy regarding student class participation and the requirement to deconflict field studies travel with the academic schedule as follows:¹

      1) Students shall not miss an elective, lecture, or core course to participate in IS field studies. If an industry study seminar must leave the night before a field study visit, the departure may not interfere with student course participation in other scheduled ES/NDU academic events. Electives are the most frequently-affected classes.

      2) Exceptions to this policy are requested through the NSIB Department Chair and Associate Dean, and approved by the Dean of Faculty. The course instructor(s) must be aware of the plan and may require completion of a make-up assignments. All requests must include the following: names of students for whom you are requesting an exception, classes that will be missed, class instructor names, and whether the instructors have concurred.

      3) There may be circumstances in which arrangements may be made among the core teaching team members to accommodate a change of class schedule, with no loss of participation. In those situations, teaching team faculty must request a schedule exception from Associate Dean, Col Tom Santoro, via the NSIB Department Chair.

¹ Also see the ES Faculty Handbook, chapter 4 (Academic Policies), paragraph 17.c.
d. **Travel Advisories.** Even in times of relative stability, it is important to monitor the countries you plan to visit. As a minimum, regularly check the following State Department travel advisory website for the latest information: [http://travel.state.gov](http://travel.state.gov). As a matter of policy, ES groups will not travel to countries listed on the State Department Current Travel Warning List. NOTE: Field Studies destinations are subject to change depending on world affairs.

e. **Orders.** All IS seminar members (student and faculty) will conduct travel on ES issued, official Defense Travel System (DTS) travel authorizations while on couplets and field studies. All travelers should print and have a copy of the official orders with them while on travel.

f. **Group vs. Individual Travel.** ES policy requires that all students travel to and from their field studies travel destinations with their seminar group. The ES Dean of Administration must approve all deviations. Requests for exceptions are routed via the appropriate IS faculty lead and the ISP Director.

g. **International Students and Industry Studies Field Studies Travel:** International students are categorized as either “International Fellows” or “International Officers”. ES policy regarding international students and industry studies field studies travel as detailed:

1) **International Fellows.**
   a) International Fellows are foreign officers attending ES by invitation from the CJCS and are required to participate in the Secretary of Defense’s Security Assistance and Training program administered by ISMO.
   b) International Fellows do NOT participate in the international travel portion of the Industry Studies Program global field studies.
   c) International Fellows are expected to accompany their IS seminars on all field studies activities within the United States, including couplets.

2) **International Officers (IO).**
   a) Currently our Canadian (2) and French DGA (1) students
   b) Are not considered “International Fellows”
   c) Are attending ES under MOUs with ES
   d) Do not participate in the SECDEF program and take the same curriculum as US students.
   e) **Will** accompany their respective IS seminars on all field studies travel, both CONUS and OCONUS
   f) Special considerations:
      i. IS Leads need to coordinate with the Canadian/DGA IO concerning any visa requests that the student requires for international travel through their respective governments.
      ii. It is important to note upfront in the country and theater clearances that the group includes a foreign national.

h. **Travel Itinerary Variances.** Per Section 2, paragraph 2.f. above, all requests to deviate from the group itinerary and depart or return on a different flight/at a later date must be approved
by the Dean of Administration.

- All attempts must be made to coordinate travel variances prior to the purchase of the group travel tickets. Coordinating variations after the fact is time consuming and can add additional financial burden to the traveler.
- If approved by the Dean of Administration, the itinerary changes must be coordinated with, and approved in advance by, the appropriate CBA holder. All itinerary details must be provided to assist the CBA holder with their accounting reconciliation procedures.
- The traveler is responsible for all additional costs incurred as a result of changes for personal convenience.
- The traveler is responsible for providing copies of all cancellation, change and/or credit documents to the CBA account holder.
- An individual change may result in cancellation or unintended changes to the group ticket, individual changes that result in any modification to the original group ticket are prohibited.

i. Spouse Travel. NDU policy prohibits spouses and family members accompanying or meeting students and faculty members on field studies. This policy is strictly enforced and exists to eliminate any possible perceptions that field studies are not a full-time, professional endeavor.

j. Sports Equipment. NDU policy prohibits carrying golf clubs and other obvious sports equipment on field studies.

k. Required Training for International Travel: The Foreign Clearance Guide (FCG) (DOD 4500.54-G) identifies the administrative and training requirements for all travelers (students and faculty) who will be travelling internationally. Industry Study specific requirements will be provided by the ES Academic Program Support Team. Current international travel requirements include:
   - Anti-Terrorism/Force Protection (AT/FP) Level 1 Training
   - Survival, Evasion, Resistance and Escape (SERE) 100.2
   - Isolated Personnel Report (ISOPREP)
   - Human Rights Training/General Order Number 1 [USSOUTHCOM]
   - USFK (Korea-specific) Training
   - USPACOM AOR Security Brief

l. Recall Information. Prior to commencement of all travel, each IS seminar faculty lead will provide ES Operations and the ISP Director a complete seminar travel itinerary, including dates, times, locations, phone numbers, points of contact, and hotels. Itineraries and rosters are to be sent (encrypted) to the Outlook group mail address “ES-OPS” or hand carried to Rm 106. Additionally, for each traveler, the IS faculty lead is to provide a current roster of emergency contact names and phone numbers.

m. Government Credit Cards. Per the Joint Travel Regulations (JTR), it is the general policy of DoD that a DoD issued travel credit card be used by all personnel traveling on DoD orders to pay for all costs incidental to official business travel, including travel advances, lodging, transportation, rental cars, meals and other incidental expenses, unless otherwise
specification (JTR, Chapter 2, Part G, 2500) – non-DoD travel cards (e.g. State Dept, DHS, etc.)
cannot be used for DoD travel and are not compatible with the DoD finance system.
Additionally, International Students and Industry Fellows are not eligible for a DoD travel card
and will use a personal credit card for all travel expenses. Ensure you activate your travel card
prior to departing on travel, the instructions are on the back of the card. Know your PIN and try
your card before you travel.

n. **Electronic Ticket (E-ticket) Advisory**: E-tickets will be issued for all flights. Your IS
   Lead will provide you your flight information and e-ticket prior to departing.

o. **Seat Changes and Airline Upgrades and Other Than Economy/Coach-Class Air Travel.**

   1) **Other Than Economy/Coach-Class Air Travel.** DoD policy requires that economy/coach-
      class travel accommodations be used when performing official government travel. Other Than
      Economy/Coach-Class Transportation (any travel other than economy/coach-class) at government
      expense is permitted on an exception basis only. Authorization must be obtained on a case-by-case
      basis, blanket authorization and justification for Other Than Economy/Coach-Class Travel is
      prohibited. Other Than Economy/Coach-Class Transportation must be authorized in advance of
      travel.

   2) **Seat Changes and Airline Upgrades.**
      a) **All changes** to tickets **must** be coordinated with the CTO through the IS faculty lead.
         **DO NOT** contact the airlines directly prior to coordinating with the IS faculty lead.
      b) Airline tickets issued by Carlson are **group** tickets, even though they appear to be
         individual tickets. Depending on the airline policy, certain classes of fares booked by
         CTO may prohibit changes in seat location or upgrades; travelers should have no
         expectation of being able to change seats or upgrade.
      c) An individual change (in a ticket) may result in cancellation or unintended changes to
         the entire group booking, individual ticket changes that result in **any** modification to
         the original group ticket booking, or an additional cost to the ES/US Government, are
         strictly prohibited.
      d) Once tickets have been issued by CTO, the following procedures are to be followed
         **by all travelers** (faculty and students) who desire to change their seat location or
         upgrade (i.e., upgrade to “EconomyPlus”):
            i. Traveler desiring a change must contact the IS Lead with the ticket change
               request.
            ii. The IS Lead will contact CTO to determine whether or not a change can be made
                to the group ticket.
            iii. CTO will advise on whether or not a change can be made to the group ticket.
               1 If the CTO confirms that a seat change/upgrade is possible, then the traveler is
                  to coordinate directly with the airline group desk to make the change, the
                  CTO cannot assist with making the actual seat change/upgrade.
               2 If the CTO advises that a seat change/upgrade is not possible, then the traveler
                  is prohibited from taking any further action.
      e) Individual travelers are responsible for paying all costs associated with seat changes
and/or seat upgrades. **Note:** If the flight itinerary changes after an individual traveler changes their seat/purchases a seat upgrade, the traveler may lose the points/money they invested to change or upgrade their seat; the individual traveler is responsible for working with the airline to resolve this, ES will not intervene on the traveler’s behalf for reimbursement of points/money.

**p. Baggage:**
- **CONUS:** Civilian travelers may have one checked bag and one “excess accompanied bag” for a total of two checked bags within size and weight limitations imposed for the carrier for each bag. Military officers must use travel orders to preclude airline baggage charges.
- **OCONUS:** Most international flights departing the US allow at least one free checked bag and a carry on. Note that foreign carriers sometimes have lower weight restrictions than US carriers. Reimbursement for baggage is limited to two checked bags for airlines that do not provide a complimentary checked bag and one for those that do (within weight limitations of the airline). US airlines flying internationally honor the military baggage charge waivers.

**q. Rental Cars and Insurance:** The government contracted rental car rate includes insurance as long as the company subscribes to the U.S. Government Rental Car Program managed by the Defense Travel Management Office [http://www.defensetravel.dod.mil/site/rental.cfm](http://www.defensetravel.dod.mil/site/rental.cfm). Travelers are not reimbursed for rental car insurance coverage purchased in the U.S. or its territories and possessions regardless of the vendor from whom the rental car is rented. Travelers are reimbursed for mandatory rental car insurance coverage required in foreign countries. When a compact rental car (the “standard” for TDY travel) does not meet requirements, the faculty leader may authorize the size vehicle appropriate to the mission. Claims for damage to rental vehicles while being used for official business are reimbursable to the traveler or the rental car company, as appropriate, as miscellaneous transportation expenses if adjudicated as payable under the procedures set forth in the DoD Financial Management Regulation or appropriate Service regulations for the non-DoD Services. Reimbursement for personal funds for damage sustained by a rented automobile while being used on other than official business is not authorized.

**r. Medical.**
- The NDU Health and Fitness will make shots available to those groups traveling to destinations requiring immunizations.
- Travel Medicine Kits for either US or international travel are available from the NDU Health & Fitness office, Room 118, Eisenhower Hall.
- If you wear contacts or glasses, take a backup pair of glasses.
- If you take medicine daily, carry enough for the full trip in the original container. Do not wait until the night before the trip to attempt to refill your prescription.
- Medical expenses incurred while on travel are not a reimbursable expense. While the government will not reimburse for medical expenses (as a travel expense), additional travel expenses incurred as a result of a medical issue are reimbursable.

**s. Dress Code.** Professional attire (coat and tie for gentlemen; comparable attire for ladies), including ES nametag, is required for all official visits. Although “dress professionally” is the
rule, wear shoes you can walk and stand in all day. When in doubt, leave your leather soled shoes at home and wear/carry rubber soled shoes. The IS faculty lead may relax the professional attire rule during travel and when the seminar is not meeting with a company or host government senior official.

t. Reimbursement for Mileage

1) To/From Transportation Terminal or Fort McNair (reference JTR paragraph 4780).
   a) Drop off and/or pick up at a transportation terminal. POV mileage reimbursement is authorized for expenses incurred with the drop off and/or pick up at a transportation terminal.
   b) POV mileage is authorized between the traveler’s home and permanent duty station (PDS) (Fort McNair), when departing from/returning to the PDS, on a TDY requiring at least one night’s lodging – e.g., traveler departs from home to Fort McNair, then departs Fort McNair via bus/taxi, and travels to the terminal. Traveler is authorized POV mileage from home to Fort McNair, and from Fort McNair to home on the return trip.
   c) Traveler is also authorized taxi fare from Ft. McNair to terminal, and return if applicable.

2) Local Travel in and Around Permanent Duty Station (reference JTR paragraph 2800). In some circumstances, transportation expenses incurred for Industry Studies visits in the local area may be reimbursed (for additional details, refer to JTR paragraph 2805 and 2600).
   a) If a POC is ordinarily used to/from home, and POC travel is authorized/approved between the residence/PDS and one or more alternate work sites within the local area, TDY mileage must be paid for the distance that exceeds the normal commuting distance.
   b) If the traveler does not ordinarily travel by POC to/from home, and POC travel is authorized/approved between the residence/PDS and one or more alternate work sites within the local area, TDY mileage must be paid for the distance driven, less the traveler’s ordinary transportation cost to get to work and back home.
   c) When POC and/or commercial transportation use is authorized/approved for travel between the residence and one or more alternate work sites within the local area, the traveler is paid: 1) TDY mileage for POC use to travel to/from the commercial transportation stop/station/terminal for the distance that exceeds the commuting distance to the regular work site and the; 2) The actual cost of necessary POC parking; and 3) The cost of local public transit system (when tokens, tickets or cash fares are not furnished).
   d) If a POC is used instead of government furnished transportation (i.e., if government transportation is available/provided – e.g., a van or bus), the mileage rate per mile for reimbursement is $0.23. (JTR paragraph 2600).

u. Parking Overnight on NDU. As a Force Protection measure, NDU Security requires that all travelers who leave their vehicle on campus overnight submit an overnight parking request.
This can be accomplished on an individual or group (i.e., by seminar) basis. The traveler(s) must submit the request through ES Operations (ICAF-OPS@ndu.edu) and NDU Security (NDU-Security@ndu.edu) using the NDU Overnight Parking Request Form (see Appendix C, Figure 4). NDU Security will review the form and, once approved, will send the form back to the traveler(s) who will then in turn place the approved form in their vehicle window. Additionally, a fillable .pdf version of the form is available on the ES SharePoint site: https://portal.ndu.edu/sites/eisenhower/Shared%20Documents/Forms/AllItems.aspx.

v. **POV Parking at the Airport.** Per JTR paragraph 478-C, transportation terminal parking fees incurred while TDY, may be reimbursed **not to exceed** the cost of two one way taxicab fares. If claiming POV airport parking, the traveler **must** provide the cost of a round trip taxicab fare to/from the airport for cost comparison, enter in the “Comments to the Approving Official” section for cost comparison by the AO. It is the traveler’s responsibility to use the most cost-effective trip to/from the airport (JTR, par. 2000-Bl ). If the traveller chooses to use airport parking for the duration of the TDY, per NDU policy, any amount over $50.00 must be justified. **Use of Economy Parking is required** unless prior approval has been granted.

w. **Information Security.** Personal information shall not be disclosed or transmitted by unsecured email. Personal information includes but is not limited to social security numbers, birth dates, credit card information, home addresses, home telephone numbers travel, and plans/itinerary. In addition to security concerns, the use and handling of personally identifiable information (PII) is protected under the Privacy Act of 1974.

x. **Mementos and Thank You Certificates.**

1) **Mementos.** Seminars may choose to purchase and present mementos to their hosts as a small token of appreciation for their visits, all mementos will be funded by the individual IS seminars. Please refer to Appendix E for additional information and ideas.

2) **Thank You Certificates.** Additionally, thank-you certificates are available from ES Operations; to request, e-mail a list of names (title, name(s), agency/organization) to the Outlook group mail address “ES-OPS”. Ensure you allow for a 4 – 5 day lead time, all certificates are hand signed by the Commandant, do not wait until the day before the event.

y. **Thank You Letters.** Thank you letters for the ES Commandant’s signature shall be submitted as soon as possible upon the completion of a visit. Thank you letters are drafted by the individual IS seminar, reviewed by the IS Faculty Lead and are finalized by Ms. Aretha Marbury, Room 232. One comprehensive thank you letter from the Commandant should go to an executive level, or other high-ranking, member of the organization. This letter may, as a courtesy, mention all those who helped to make the visit a success and/or to recognize the point of contact who arranged the visit details. If the IS faculty elects to send additional thank you letters on ES letterhead to specific individuals other than the senior leadership, they will be prepared and signed by the individual IS teaching team level by the IS lead. The assigned Department Academic Program Support Staff will assist by providing the thank you letter template. The IS Lead shall create, proof and forward the signed letter for mailing. Consideration should also be given to
using thank you certificates, per section “x” above, for this purpose.

z. **Meals Provided:** Oftentimes firms or agencies will offer to host our IS seminars for a meal time meeting. While this is very much appreciated, we must comply with the restrictions listed in the Federal Travel Regulation and the Government Ethics guidelines. The following rules must be complied with:

- **If your meeting occurs locally, i.e. you are NOT on a Travel Authorization,** you may accept a meal that is valued up to $20 per person.\(^2\) If the host is a U.S. government agency, you are able to accept the meal as the host must have gotten prior legal approval to offer the meal.

- **If the meal occurs outside the National Capital Region,** and you are on a Travel Authorization, you may accept a meal that is valued up to $20 per person.\(^3\) If the host is a U.S. government agency, you MUST claim the meal as provided when you return and file your Travel Voucher. This rule applies both CONUS and OCONUS.\(^4\)

- **If you are hosted by the same firm more than once per year you must ensure the total value of all meals provided does not exceed $50 per person.**\(^5\)

- **If you are hosted by a foreign company, you are limited to the maximum per diem level for the foreign area you are visiting.**\(^6\)

**Note:** IS leads must exercise best judgment for determining the value of the meal or gift provided.\(^7\) While most US firms are well aware of the US Government’s $20 limit ($50 annual limit), there are many (especially foreign firms) who are not. If a firm offers in advance, you might advise them of the limits

aa. **Gift Acceptance:** Similarly, firms or agencies may offer gifts (e.g. coffee mugs, binders, shirts) to the IS when they are departing the meeting. Gifts are bound under the same FTR and Ethics guidelines and must be complied with:

- You are limited to $20 per gift by US firms or agencies. If you receive a meal as well as a gift, the total value of both cannot exceed $20. Rule #3 from section 2.z above (“Meals Provided”) still applies – if you meet with the same firm or agency more than once per year, the total value of all gifts/meals cannot exceed $50 annually.\(^8\)

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\(^3\) Ibid.


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• You may accept a gift (or combination of gifts) of “minimal value,” i.e., having retail value in the United States at the time of acceptance of $375 or less, tendered and received as a souvenir or mark of courtesy from a foreign government. “Minimal value” is established by the GSA and is adjusted every three years based on the Consumer Price Index.9

bb. **Meals or Gifts Exceeding the Ethical Limits:** If the host provides a meal or gift and you recognize the meal is worth more than your allotted amount, you must provide recompense or politely decline the meal.10 If it is a foreign gift and exceeds the $375 limit, please refer to the Federal Management Regulation (FMR), Subchapter B-Personal Property, Part 102-42—Utilization, Donation, and Disposal of Foreign Gifts and Decorations [http://www.gsa.gov/portal/ext/public/site/FMR/file/Part102-42.html/category/21858/](http://www.gsa.gov/portal/ext/public/site/FMR/file/Part102-42.html/category/21858/) for additional details.

**Note:** SEEKING ETHICS ADVICE. If any situations arise where you have questions on the propriety or the value of the meal or gift, contact the NDU Office of the General Counsel at murphyma@ndu.edu.

cc. **Safety and Security Suggestions.** The below are offered as generic considerations and do not replace official guidance and requirements identified by the Foreign Clearance Guide, State Department, or Combatant Commanders.

• Ensure your faculty lead has your most current emergency contact information. If something happens, ES has to be able to get a hold of your emergency contact.
• Travel light. You must be able to carry your own baggage. If you cannot carry your baggage quickly up the three flights of stairs at ES, you’ll never catch the train at Stuttgart station. Additionally, ES will only pay for one piece of excess baggage.
• Lock valuables in hotel safes.
• Photocopy all important documents (passport, credit cards, etc.); leave a copy at home and take one with you in a bag other than your wallet or purse.
• Travel in groups at night; stay off back streets and away from dark areas.
• Vary your daily routine.
• Run or jog with a buddy.
• Leave your expensive watch and jewelry at home.
• Carry your blue passport if you have one, even if you are traveling with a red or black passport or on NATO travel orders. You may run into a situation in which you do not want to be identified as a military officer or government civilian.
• Do not carry any more cash than you can afford to lose; use your government travel card for cash from ATMs in country.
• If you need to take electric hairdryers, or shavers, determine if you need a current converter or plug adapter for the country you will be visiting. Most hotels catering to North Americans have 60-cycle, 115-volt outlets. Some hotels may have hair dryers; check the hotel website for more information.

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• Try to blend in, where feasible.

dd. **Travel Claims.**

• Travel vouchers are filed via DTS within five working days after the travel end date.
• Receipts must be electronically submitted by fax or "scan and upload" for all individual expenses over $75, and all lodging and airline/ rail costs, if paid by individual government credit card. Additionally, NDUI 1100.01 requires receipts for airfare, rental car, rental car fuel, tolls, parking, and excess baggage claims.
• Do not claim charges if lodging and airline/rail tickets were purchased using the government corporate credit card. Provide the invoices and receipts to the Industry Study lead faculty members who will compile all group travel information and will forward to the ISP Director. Email these to: NSIB_Dept_Travel@ndu.edu.
• If two travelers share a room, ask the hotel to split the bill so each occupant has a separate receipt. If the hotel is unable to provide separate receipts, note the name of the second traveler at the top of the receipt. Travelers can only claim their portion of the room charge.
• Convert currencies to US dollars
  - Record the conversion rate used and total converted charges in U.S. dollars on the receipt and upload it to the voucher in DTS.
  - Use an official rate of exchange from a credible source, such as the credit card statement. **Do not use the hotel rate.**
• Reimbursable Travel Expenses. Please refer to the JTR Appendix G – Quick Reference Tables for reimbursable and non-reimbursable official travel expenses or JTR Chapter 2, part M for detailed expense lists, restrictions, and governing regulations.
• Travelers can check the status of their travel claim by accessing their DTS account.
Appendix A

AY16-17 Industry Study Seminar Descriptions & Faculty Leads

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<tr>
<th>INDUSTRY STUDY SEMINAR</th>
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<th>OFFICE</th>
<th>PHONE</th>
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<tr>
<td>Advanced Manufacturing (AM)</td>
<td>Dr. Linda Brandt</td>
<td>Rm 334</td>
<td>685-4488</td>
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<tr>
<td>Agribusiness (AGR)</td>
<td>CAPT Gary Deal</td>
<td>Rm 326</td>
<td>685-4404</td>
</tr>
<tr>
<td>Aircraft (AIS)</td>
<td>Dr. Sorin Lungu</td>
<td>Rm 352</td>
<td>685-4186</td>
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<tr>
<td>Biotechnology (BIO)</td>
<td>Dr. Tony DiBella</td>
<td>Rm 359</td>
<td>685-4359</td>
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<tr>
<td>Education (EDU)</td>
<td>Col Joe Brownell</td>
<td>Rm 324</td>
<td>685-4349</td>
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<td>Electronics (EIS)</td>
<td>Dr. Steve Basile</td>
<td>Rm 423</td>
<td>685-4794</td>
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<tr>
<td>Energy (ENG)</td>
<td>CAPT Bill Johns</td>
<td>Rm 269</td>
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<td>Environment (ENV)</td>
<td>Dr. Greg Foster</td>
<td>Rm 339</td>
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<tr>
<td>Financial Services (FS)</td>
<td>Dr. Shannon Brown</td>
<td>Rm 210</td>
<td>685-8031</td>
</tr>
<tr>
<td>Health Care (HC)</td>
<td>Col Lawrence “Cheese” Colby</td>
<td>Rm 472</td>
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<tr>
<td>Information &amp; Communications Technology (ICT)</td>
<td>Col Paul Gillespie</td>
<td>Rm 437</td>
<td>685-4049</td>
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<tr>
<td>Land Combat Systems (LCS)</td>
<td>Col Dan Ermer</td>
<td>Rm 138</td>
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<tr>
<td>Private Sector Support &amp; Services (PS3)</td>
<td>COL Quentin Rashid</td>
<td>Rm 391</td>
<td>685-4320</td>
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<tr>
<td>Reconstruction (REC)</td>
<td>COL Martha Foss</td>
<td>Rm 460</td>
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<td>Robotics &amp; Autonomous Systems (RAS)</td>
<td>CAPT Rich Davis</td>
<td>Rm 497</td>
<td>685-4428</td>
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<tr>
<td>Shipbuilding (SHP)</td>
<td>CAPT Tom Monroe</td>
<td>Rm 265</td>
<td>685-4325</td>
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<tr>
<td>Space (SPC)</td>
<td>Dr. Clark Groves</td>
<td>Rm 434</td>
<td>685-4773</td>
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<td>Strategic Materials (SM)</td>
<td>Mr. Byron Hartle</td>
<td>Rm 384</td>
<td>685-4280</td>
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<td>Transportation (TRN)</td>
<td>CAPT Matt Callan</td>
<td>Rm 496</td>
<td>685-4478</td>
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<td>Weapons (WPN)</td>
<td>COL Rich Paquette</td>
<td>Rm 140</td>
<td>685-4475</td>
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ADVANCED MANUFACTURING (AM): Brilliant manufacturing, disruptive manufacturing, high velocity manufacturing, innovation hubs; all of these phrases have been used to describe Advanced Manufacturing. Manufacturing itself is an enabling technology which underpins and supports any number of defense and industrial sectors. As such, it is critical to the national economy and to national defense. The Department of Defense has a longstanding interest in the sector, as both a developer of advanced manufacturing technology, and a customer of manufactured products. Advanced technology and innovation are underpinnings of defense, and are the basis of the Department’s Third offset strategy. Beyond the DoD, the White House has supported AM through its National Network for Manufacturing Innovation, and its support for the creation of manufacturing innovation hubs.

This IS will examine a number of the disruptive technologies that make up Advanced Manufacturing. These include:

- The manufacturing version of the internet of things; the embedding of sensors in parts, machines and products, both on and off the factory floor, which allows the transmission of information, and the integration of machines, products, maintenance, as well as speed and traceability;
- Additive manufacturing (3D Printing), or the use of digitization to create tangible goods in real time, and in distributed or diverse locations;
- Robotics and human, machine interfaces;
- Big data and advanced analytics.

These and many more will be a source of innovation and strength for those countries and companies that can take advantage of these disruptions, but will also pose a threat to those entities that cannot participate in the innovation boom.

The IS will examine the role of global and domestic governments (national, state and local) in this innovative and disruptive field. How, and when, are innovative technologies started, spread and implemented across industries? What role and interest does the Defense Department have in the development of innovative and disruptive technologies? How and when does industry participate and lead in this effort? What, if any national policies are necessary and sufficient to foster advanced manufacturing innovation? Will there be winners and losers? Domestically? Globally? By company?

We will examine the alliances between academia, government and industry that work together to allow the development, growth and diffusion of advanced technologies. We will visit Federal labs, where advances in additive manufacturing are taking place, we will visit companies who are recreating themselves around brilliant manufacturing, and academia, where research and development are taking place, and workers capable of working in advanced manufacturing are being educated and trained. We will examine Innovation Hubs, where effective synergy takes place.

**AGRIBUSINESS (AGR):** American agribusiness is in the midst of a global competition that is re-defining the role of U.S. agriculture in the world marketplace and the domestic economy. Factors shaping the industry today include an accelerating pace of change and unprecedented levels of complexity in what has been considered a traditional, simpler commercial sector. These factors are driven by increasing demand in both the quantity and variety of foods amongst worldwide consumers that shows no signs of leveling off. This powerful dynamic is further magnified by both domestic politics and international diplomacy. This study fully explores the industry by approaching it from a variety of perspectives and data sources. We will examine the entire value chain, beginning with research and development and continuing through the major participants and processes that add real and perceived consumer value. Food production is not a continuum; the business varies widely by product, market, and locale. We will therefore examine the domestic industry both by commodity and by region, contrasting the challenges and outlooks for these components of the industry. The study will also examine a wide array of global issues that directly impact agribusiness, including: environmental concerns; water availability and management; land use and encroachment; biotechnology; food safety; agro terrorism; diseases and invasive species; growing labor and immigration issues; the effects of globalization; sustainability; food security; world trade issues; rural social and economic impacts; and U.S. government farm legislation.

American agribusiness is an essential aspect of our national power that will be even more valuable in the coming decades. There are a number of significant issues related to agribusiness
that impact the national security and economic interests of the United States, some of which may not be obvious. These include international issues such as: food crises and social unrest\textsuperscript{11}, competition for water, and population growth; plus domestic issues such as farm labor and immigration policy, nutrition and health concerns, and global warming and environmental regulations. While both domestic and international issues are important, it is the international agricultural challenges that pose a larger national security concern. Competition for food and resources could result in instability and conflict involving US defense forces and industry if it is not addressed strategically.

**AIRCRAFT (AIS):** AIS addresses the strategic importance of the U.S. aircraft industry to national security. The AIS seminar focuses on the U.S. and international aircraft industry, including commercial and military fixed-wing and rotary-wing aircraft, and related propulsion systems. Based on discussions with senior executives and information acquired during field visits and through industry analysis methodologies, the seminar analyzes and evaluates major issues facing the industry, including corporate planning and management strategies, modern manufacturing techniques, and government-to-corporate organizational relationships to increase aircraft industry competitiveness. During discussions with industry, emphasis is placed on the structure, conduct and performance (SCP) of the industry, and government policies and decisions that affect the industrial base. Key questions to be addressed this year include:

- existing and emerging patterns of governance in the in the U.S. and global aircraft sector and implications for U.S. national security (including corporate & business strategies);
- the impact of national and regional business-governments relations on (U.S., European Union, China, Russia, India and Brazil) on the aircraft industrial sector’s key SCP parameters;
- government (direct and indirect) subsidies to commercial aircraft manufacturers and their effects on international competition and high-technology trade;
- the global nature of the aircraft industry supplier base and the emerging possible and probable risks to national security;
- the growing role of unmanned air systems (UAS/UCAS) in both military and civilian applications; and,
- the state of fighter aircraft, helicopter, air refueling and military transport production.

**BIOTECHNOLOGY (BIO):** Biotechnology refers to “techniques for using the properties of living things to make products or provide services.”\textsuperscript{12} The core of the biotechnology industry, however, is the enabling technologies that underpin these techniques.\textsuperscript{13} These enabling technologies have broad applications for healthcare, agriculture, and industrial/environmental needs (e.g. renewable energy). The importance of biotechnology to US national security is demonstrated by the Obama Administration in the 2012 Bioeconomy Blueprint, which states:

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The bioeconomy has emerged as an Obama administration priority because of its tremendous potential for growth as well as the many other societal benefits it offers. It can allow Americans to live longer, healthier lives, reduce our dependence on oil, address key environmental challenges, transform manufacturing processes, and increase the productivity and scope of the agricultural sector while growing new jobs and industries.\textsuperscript{14}

The Biotechnology IS program will conduct a strategic assessment of the biotechnology industry, beginning with the core of the industry – the science. We will focus on the entire value chain of the industry including research and innovation, the transition from science to commercial product, and the supply and support requirements to successfully compete in the various markets that include biotechnology products and services. We will also examine how the biotechnology industry is impacted by regulation, ethical debates, and public perception.

The assessment will include an analysis of each of the industry segments: Health, Well-being and Biodefense; Industrial and Environmental; and Bio Agriculture. We will also evaluate the business, science, and policy dynamics that shape the evolution and interaction within the segments and evaluate the overall economic and security contribution of the biotechnology industry.

**EDUCATION (EDU):** Traditionally, the U.S. has depended upon an enlightened public to participate in its democratic processes, to support its economic progress, and to maintain technological competitiveness as an element of its national security. Policymakers at national, state, and local levels have proposed and implemented various initiatives for enhancing education and training excellence to offset a perceived decline in educational performance. This perception is reflected in such indicators as low relative international standing of U.S. students on achievements tests, continuing achievement gaps for minorities, and a perception that U.S. workers lack the skills to keep America technologically and economically competitive.

The Education IS analyzes the condition of education with emphasis on: general education (pre-K, elementary (public, catholic and charter), secondary, and post-secondary to include community colleges, four year public and private, and for-profit); vocational/technical education; education and training in the workplace; university research and business innovation; and supporting industries to include book publications, learning tutorial, online, and test development firms. We will talk first-hand with federal, state, county and local policymakers and practitioners to include congressional staff, state chancellors, university deans, corporate learning officers, city and county superintendents, think tank experts, education lobbyists, headmasters, principals, teachers, and students. We'll visit both high-end and challenged school systems. And, we'll discuss the difficult issues in this industry: common core learning standards, testing, teacher preparation, recruitment and retention, equity and equal access, student learning and performance, STEM, remediation, spiraling university cost, student debt, higher education act re-authorization, and many others.

\textsuperscript{14} National Bioeconomy Blueprint, White House, April 2012.
ELECTRONICS (EIS):

Steady improvements in semiconductor cost and performance have been a major driver in the improvements in US productivity and growth in the postwar period (Jorgenson and Stiroh, 2000). Because of the strategic economic importance of the chip industry in supporting innovation and growth across industries, as well as its importance in military equipment and operations, governments worldwide have taken a keen interest in supporting domestic development of the industry and in regulating export of its technology and products.¹⁵

Advances in the electronics industry, enabled largely by semiconductors (also referred to as “chips” or “integrated circuits (IC)”), have increased productivity and led to numerous innovations in defense, education, healthcare and other industries across all sectors of the global economy. U.S. leadership in the industry has enhanced innovation, economic growth, and the development of advanced defense technologies and capabilities.

The “electronics industry” consists of numerous sectors and product categories, ranging from aerospace, automotive and medical to consumer and defense electronics. Additionally, the “defense electronics” sector includes such diverse applications as radar, sonar, communications, lasers, guidance and navigation and electronic warfare systems. While surveying a wide variety of applications within defense and commercial electronics sectors, the Electronics Industry Study will use semiconductor production as a focal point.

While historically the Department of Defense has played a significant role in technological innovation and the advancement of the electronics industry, its influence has diminished as the electronics industry increasingly operates in a commercially-driven global market. The EIS will seek to examine and assess the electronics industry, from both a domestic and international perspective, in supporting U.S. national security capability requirements with respect to a global electronics industry.

ENERGY (ENG): The Energy Industry is a global enterprise involving governments, multinational companies, and international environmental and social policies. The energy industry is the totality of all of the industries involved in the production and sale of energy including oil, natural gas, coal, nuclear power, renewable energy and fuels, as well as electricity, smart grid, and demand response technologies. The Energy Industry provides key resources that underpin or facilitate almost all other industries. As such, energy is an economic driver that often directly influences U.S. national and global competitiveness. This competitiveness directly contributes to a strong economy that enables a rising standard of living and supports the strategic goal of national security, as it provides the financial base and the industrial base (broadly defined) to resource national security requirements. Key issues of the Energy Industry Study are the intersection of energy with security, political, global, economic and environmental issues and policies. Today’s important energy issues revolve around the need for cheap, available and secure sources and distribution of energy not only to the U.S. but our allies. Energy security, the uninterrupted availability of energy sources at an affordable price, is one of the most visible,

important, and controversial contemporary issues confronting national security decision-makers and the American public. The interactions of energy with the economy, and with other issues (e.g., population, health, governance, technology, and ideology) may well produce effects of immediate and lasting significance to U.S. national security. World energy markets continue to be vulnerable to disruptions precipitated by events ranging from geo-political strife to natural disasters. As oil demand and imports continue to grow, energy concerns go beyond oil.

ENVIRONMENT (ENV): The Environment Industry Study examines the extraordinarily varied and complex network of actors, processes, legal and regulatory mechanisms, and perspectives that converge at the intersection of environmental concerns, economic performance, and security. Markedly unlike traditional industrial sectors, the environmental industry consists of those revenue-generating goods and services associated with environmental protection, assessment, compliance with environmental regulations, pollution control, waste management, remediation of contaminated property, design and operation of environmental infrastructure, and the provision and delivery of environmental resources. This highly fragmented industry includes air, water, and soil pollution control; solid and toxic waste management; site remediation; and environmental monitoring and recycling. One of the fastest growing sectors in the world economy—a roughly $600 billion market for goods and services—the environmental industry has evolved in response to growing concerns about the risks and costs of pollution and the enactment of pollution control legislation in the United States and around the world.

The Environment IS will give due attention to the full range of organizations and perspectives that could affect the performance of U.S. and international business in the environmental sector and will address itself to the following questions: What is the relationship between the environment and security? How strategically important are environmental priorities and technologies? How do environmental concerns and measures interact with the economy? What is the relationship between environmental protection/stewardship and economic competitiveness? How, and how effectively, is the U.S. government organized for environmental affairs? What domestic and international organizations (governmental and non-governmental) have an important impact on this sector? What domestic and international environmental laws, regulations, and standards affect the performance of industry? How is the environmental industry organized? What other private-sector organizations focus on the environment? How capable is the U.S. environmental industry of responding to domestic and international emergencies? How competitive is the U.S. environmental industry vis-à-vis that of other countries?

FINANCIAL SERVICES (FS): After the financial meltdown of 2008 many of the fundamental questions that emerged in its wake remain unanswered. Although Congress and the Administration have addressed some of the conditions that contributed to the crisis, making it one of the most heavily regulated sectors of the economy, no consensus has emerged on the vulnerability the industry still poses to national interests. The core areas for consideration in FSIS are the causes of the 2008 Financial Crises and whether subsequent policy and regulation (much of which is found in the 2010 Dodd-Frank Act) has adequately addressed them, and in doing so if the potential for profit and innovation remain adequate for this industry to be sustainable and able to provide the necessary contribution to a growing U.S economy in the future? Is this sector now safer? What vulnerabilities remain? Has it become more efficient or
effective? Is there another crisis on the horizon? What is the linkage between a strong Financial Services industry and a strong Defense? How can the Financial Services industry be strengthened?

Particular emphasis during the first half of the course is on commercial and investment banking, both because of their pivotal role in the Financial Crisis and as they have thus far received most of the regulatory reform. We will then examine how this regulatory reform is pushing systemic risk from the core of these industries into adjacent markets such as global markets, shadow banking, private equity, student loan industry, and the insurance industry. These adjacent markets, together with areas simply not fully included in Dodd-Frank (fragmented regulatory structure, global systemic risk, government sponsored agencies such as Fannie Mae, money markets, and credit rating agencies), as well as innovative and potentially high risk new financial tools (high frequency trading & dark pools), offer opportunities from which students can work with faculty to customize the second half of our program.

HEALTH CARE (HC):

“The first wealth is health” - Ralph Waldo Emerson

From pandemics to medical devices, and pharmaceuticals to Tricare, come learn about the largest industry in America! Health Care is an aggregation of sectors in the economy that provides goods and services to treat patients with curative, preventive, rehabilitative, and palliative care. The modern health care industry is divided into many exciting sectors and depends on teams of trained professionals and paraprofessionals to meet the health needs of individuals and populations.

The goals of our Industry Study are to: develop a strategic perspective of the industry and its role in supporting national defense during peacetime and times of conflict, and, to examine the largest industry in America, representing nearly 18% of the total U.S. economy that employs 16.7 million people. It is also one of the most regulated industries in America and around the world.

Our methodology is through independent and group research projects to analyze the performance of public and private aspects of the U.S health care industry in the competitive world arena. The seminar sessions are with both domestic and international health care experts from industry and government. Our on-site visits are to health care industry corporate offices and facilities, hospitals, and governmental and international organizations.

We will focus on the ability of the major industry sectors (such as pharmaceuticals, hospitals, insurance, supplies, and devices) to support the national military strategy and national security strategy. We will consider the government’s role and interactions with industry to best serve our enduring interests. The Health Care Industry Study will also conduct a comparative analysis of U.S. and other national, and international health care policies and systems for both defense and non-defense environments. Field studies at home and abroad (India and Canada) will promote and facilitate learning from national and international industry leaders. As a result, this industry study provides an excellent opportunity to provide knowledge and understanding of industry perspectives on value creation, interaction with government, and responses to government
actions to regulate and draw resources from industry. The focus throughout the course will look at four main areas related to health care: cost, access, quality, and innovation.

**INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT):** ICT is the transforming medium and enabler of the global economy. It affects the lives of citizens worldwide on a daily basis, both in their individual communications and entertainment as well as their interactions with business and government at all levels. The health and global competitiveness of US ICT firms are essential to national security and national power. The ICT industry is marked by extraordinarily rapid growth and technological change, making strategic decisions by industrial competitors and governments extremely difficult. Within this dynamic and exciting arena, this industry study will examine primary sectors of the ICT industry including: telecommunications service providers (including internet providers and networking firms), operating system and application software publishers, data services and system integration firms, and ICT equipment manufacturing companies. In the course of that examination, key topics to be addressed will include market competitiveness, public and private governance, national security concerns, cybersecurity, privacy, intellectual property protection, electronic commerce challenges, international trade, access to broadband services, and maintaining a competitive national workforce. The study concludes by assessing and recommending necessary changes to federal enabling policies.

**LAND COMBAT SYSTEMS (LCS):** This seminar will focus on analyzing and evaluating the various actors, firms, organizations and institutions—both on the demand and supply side—that comprise the combat and tactical vehicle sectors of the US defense industry. The seminar will use a multitude of evaluation tools to study how differences in structural variables (ownership, market structure, policy, technology, decision processes, constraints, etc.) influence conduct, which in turn determines industry performance in efficiently satisfying national security requirements.

The US Land Combat Systems industry is different from commercial industries in: (1) it produces what are essentially public goods, (2) the US Government is the primary buyer of US produced LCS products (domestic monopsony), (3) the demand for LCS products is determined by a public policy decision making process, (4) the suppliers are able to influence consumption decisions via participation in the political decision making process, (5) the demand for LCS products can change dramatically depending on national security needs (i.e., low demand in peacetime and high demand in times of conflict) and (6) the customer (government) regulates to whom industry can sell their products (arms and technology export regulation).

During the industry study, students will conduct primary research through site visits, field studies, leadership interviews, and literature reviews in order to analyze and address strategic complex issues and trade-offs amongst stakeholder organizations. The seminar will also analyze and evaluate the structure, conduct, and performance of the European LCS sector and compare and contrast it with the US LCS industry. Furthermore, the seminar will evaluate both U.S. and European efforts to reform their defense industries in the face of decreasing budgets, declining demand, and proposed membership changes amongst European Union partners.
PRIVATE SECTOR SUPPORT and SERVICES (PS3): Today, the Department of Defense spends more on Services than material. From the guards at the Fort McNair gate to the mess hall on Fort Myer to the logistics when deployed to the SME in your office, we all manage or experience contractor support every day. The PS3 industry study examines and recommends policy to improve or mitigate the effectiveness, efficiency, risks and challenges of contractor support to operations, at home or abroad, the success of which are critical to U.S. national security. It examines domestic and international private firms that provide myriad services to the Department of Defense and other U.S. government agencies, in particular Departments of State and Homeland Security, in support of a wide variety of operations. This includes logistics support, military training, consulting, law enforcement training, intelligence, maintenance, base operations, and security services.

Since the end of the Cold War, many military and interagency functions have migrated into the private sector, largely as a function of cost savings. While “good for business” for some companies, the conflicts in Iraq and Afghanistan exposed the increasing demands being placed on military and interagency acquisition systems, command and control arrangements, readiness requirements, and daily operations. Areas of doctrine, policy, organization, culture, as well as both interagency and coalition coordination have simply not kept up. Recent activities of some contractors in ongoing operations, particularly private security personnel, also demonstrate that neither U.S. nor international legal regimes have kept pace with the realities of contractors on the battlefield.

The PS3 industry study seeks to understand the strategic impact of using commercial firms to provide support across the spectrum of domestic and international contingencies and operations. We will examine and assess the historic effectiveness and efficiency of contractor support in recent operations, and identify areas for improvement. We will assess the impact of expanding private sector involvement in the ‘Whole of Government’ approach to operations. Our field studies we will allow us to anchor our investigation with academic rigor through discussions with some of the world’s foremost experts in this industry, and will include visits to major domestic and international companies who operate in nearly every hot spot in the world. We also engage U.S. strategic leaders who deal with the political realities associated with contractor performance. Finally, international travel will allow students to examine and learn from the experiences of government, military, trade union and industry leaders of key allies (United Kingdom and France) with a range of perspectives and experiences in the use of contractors in support of operations.

RECONSTRUCTION (REC): The Reconstruction industry is a multi-billion dollar enterprise comprised of an ‘industry-of-industries’, focusing on post-conflict construction, disaster relief, humanitarian assistance and the national security priorities of preventing conflict, stimulating economic growth, strengthening weak and failing states, lifting people out of poverty, combating climate change and epidemic disease, and strengthening democratic governance.

In a period of declining discretionary budgets, the US will be faced with the challenge of balancing national security concerns with overseas disaster relief, humanitarian assistance, post-conflict construction, and stabilization efforts. The 2017 Reconstruction Industry Study will assess the feasibility of using this period of declining budgets to force efficiencies into the U.S.
disaster relief, stability, construction, and development calculus. Continuing to spend billions in aid without unified long-term objectives and a strategy to achieve those objectives not only cripples the U.S.’ ability to synergistically set and achieve security priorities, but actually hinders host countries in their efforts to build and sustain government services and economic capacity.

Guided by the June 2015 USAID Policy on Cooperation with the Department of Defense, utilizing the Interagency Conflict Analysis Framework (ICAF 2.0) and research topics framed by OSD Policy for Stability and Humanitarian Affairs, the analysis will expose students to a wide variety of differing opinions and perspectives with most of the interaction being provided by subject matter experts from organizations such as the USAID Office of Transition Initiatives through to corporate entities such as Louis Berger Group, DAI, Chemonics, and Tetratek. In 2017 the students and faculty involved in the analysis will become certified in Joint Humanitarian Operations through the USAID Office of Foreign Disaster Relief (OFDA) as well as potential travel to Miami, Haiti, and the Dominican Republic with the specific purposes of interacting with governments, businesses and organizations supporting the overall reconstruction and stabilization objectives of post disaster relief efforts in the Dominican Republic and Haiti following the 2010 devastating earthquake and an additional focus on the newly signed peace agreement in Colombia between the Government of Columbia and the Revolutionary Armed Forces of Columbia (FARC) after over half a century of insurgency.

ROBOTICS AND AUTONOMOUS SYSTEMS (RAS):

Computers seem overwhelming enough, but over the last few years I became more and more convinced that my generation was living through something perhaps even more momentous. From the robot vacuum cleaner that patrols my floors to the unmanned planes that my friends in the air force use to patrol Iraq, humanity has started to engineer technologies that are fundamentally different from all before. Our creations are now acting in and upon the world without us.\(^\text{16}\)

Many observers agree with P.W. Singer’s assessment above, robotic technology and engineering are changing the way we live and fight wars. The Robotics and Autonomous Systems (RAS) industry study will examine this proposition as well as the strategic importance of the RAS industry to US national security. RAS industry study participants will identify, analyze, and assess the structure, conduct, and performance of RAS markets, both in the US and abroad. Topics include: Market structure and its impact on innovation, sustainment of RAS, R&D investment, ethics and accountability issues, and overall health of the US RAS industry both in the defense sector and commercial applications. The RAS industry study will visit these (and other) topics with primary focus on the US and Asia. Ultimately, RAS industry study participants will provide an empirically-based answer to the question – Does the RAS industry support US national security requirements today? Will it in the future? The study will also attempt to answer such questions as:

- Are robotics and autonomous systems transforming society? What role does Artificial Intelligence (AI) play in current and future instantiations of autonomy?
- How are robotics and autonomous systems impacting US industry and the workforce?

• Who is providing the capital for R&D investment in RAS-related markets? Is the answer the same for defense and commercial RAS markets? Why or why not?
• How do RAS firms make investment decisions? Is the process the same for defense and commercial firms? Why or why not?
• Do defense related robotics and autonomous systems constitute a “revolution in military affairs”?
• Are the military services “embracing” these disruptive technologies? Why or why not?
• What are the ethical considerations associated with employing RAS on the modern battlefield? Does the increased use of RAS make the decision to use force “easier” for US leaders?
• What is the role of a “person in/on the loop” and what place should fully autonomous armed systems have in DoD?
• How does the current US export control policy help or hinder the US RAS industry? When will the use of RAS lead to significant personnel cost savings for the US military?

SHIPBUILDING (SHP): Is the United States a Maritime Nation? 90% of all the world’s trade goes by sea on the largest machines ever built, which ties together the national economies of all industrialized nations. Protecting this enterprise is a matter of national security, which forms the basis of the interrelation between commercial and defense interests. However, beyond merely defending seaborne commerce, the Navy’s mobility and nuclear and conventional strike capability allows the U.S. to project power onto any position on earth. Therefore, ships are critical to commerce and national security.

Despite what many think, the shipbuilding industry experiences significant volatility. While ships do take a long time to build and can remain in service for over 50 years, economic markets and national security priorities change far more quickly resulting in asynchronous cycles of shortage and excess. The recent drop in oil prices leaving unfinished rigs and tankers rusting in foreign shipyards is a prime example of volatility; the shipbuilding surge during WWII is another.

The Shipbuilding Industry Study has an opportunity to make real impact on government policies affecting the commercial and defense maritime industries. In addition to domestic and international visits, the seminar will meet with strategic leaders from industry, the Dept of the Navy and the Maritime Administration of the Dept of Transportation early in the seminar, and then at the end. The first phase of the seminar is focused on providing basic understanding of the structure and health of the industry and to develop the questions that need to be answered to address national security and global stability concerns. The second half is focused on independent and group research to answer those questions and then presenting those findings and recommendations to those same leaders. Here are some questions that you will need to work through while on the journey of studying the shipbuilding industry:

• What are the strengths and weaknesses of the industry?
• What is the industry doing to posture itself for the future?
• Is this industry truly a critical defense industry and why?
• What role, if any, is and should the federal government playing in the industry?
• Does the Shipbuilding Industry believe the federal government would let them fail?
• What impact will decreasing national budgets have on this industry’s ability to support our national military and security strategies?
• Who are the world leaders and how have they achieved success?
• How will rapid technological advances & the information age impact the industry?
• Does the U.S. Shipbuilding industry have excess capacity? Does it have enough?
• What motivates shipbuilding companies to stay in the business?
• Does the U.S. policy for foreign military sales and procurement of foreign-built ships work for or against our national interests?
• Will the new wider Panama Canal impact global product and energy trade by sea and, therefore, our national security? How should the U.S. react?
• Does the U.S. overly protect the U.S. shipbuilding industry from foreign incursion?
• Is the U.S. in danger of losing their shipbuilding capability, like the U.K.?
• Does the U.S. desire to be a world leader in the shipbuilding industry?
• What is the definition of a “Maritime Nation?” What nations fit the definition? Is the U.S. even on the list?

SPACE (SPC): At the height of the Cold War, U.S. astronauts made a “giant leap for mankind” and stepped onto the surface of the Moon. It was the culmination of a decade of intense effort by the United States to fulfill President Kennedy’s call to win the Space Race and conquer space challenges “not because they are easy, but because they are hard …” Over five decades have now transpired in the space age, and the U.S. is still the only nation in history to accomplish the amazing technical feat of placing humans on another celestial body. Creating and sustaining space industrial capabilities remains very hard, even today.

However, the global space enterprise has changed significantly since the height of the Cold War, and is now at an inflection point in its history. Space technology is now distinctly in the “dual use” category. Most of the roughly $300B per annum spent globally in the space economy flows through commercial space companies, who use satellites to provide telecommunications services to the general public. Strong growth in demand for commercial space services is expected for the foreseeable future, with most new customers living in the developing world. At the same time, space remains strategically and militarily important to the Great Powers. However, the capability to manufacture, launch, and operate spacecraft is no longer limited to the United States and Russia. The number of nations competing in the space economy has grown significantly, with multiple European countries, Japan, China, India, and Brazil all having highly capable space industries, and countries such as South Korea and Viet Nam engaging in serious space development efforts. Space capability is the basis for modern militaries to achieve instantaneous global communication, dominant command-and-control, precision strike, persistent surveillance, global intelligence, geolocation, weather prediction, missile warning, and nuclear force delivery. The U.S. is especially dependent on space for achieving military competitive advantage. We have unique military-intelligence space capabilities that no one else can match. For the United States military, space is not just a force multiplier, it has become a primary element of our global presence and strategic depth. Our adversaries are well aware of our military dependence on space, and are developing ways to counter our advantages.

The need to protect space technologies, while allowing U.S. space companies to compete globally in the commercial sector is a primary policy dilemma facing our national leaders. The
affordability and sustainability of our space architecture depend upon achieving the proper balance in this equations. The Space Industry Study seminar will analyze both domestic and global elements of the space economy, with an emphasis on the most competitive emergent technologies. We will examine short and long-term trends, and forge recommendations for policies, to ensure the U.S. maintains its key space advantages in both the security and economic domains. The overarching focus will be analyzing the strength of U.S. space firms relative to an increasingly competitive global context.

Specific emphasis will be given to areas such as these:
- Divergence of commercial vs. government space procurement practices and norms
- Affordability in the remaining military/government monopsony market segments
- Re-emergence of a U.S.-based commercial launch sector (and the effect of regulations and policies, as well as how to foster international business opportunities)
- Emerging space markets (small sat manufacturing; high resolution commercial space imagery; space tourism; and, the effect of policies on creating U.S. advantage)

Students will focus on the following industry analytics frameworks:
- How to use “Structure–Conduct–Performance” and Porter’s “Five Forces” frameworks to analyze the space industry and evaluate policy issues.
- How to use a business strategy framework to analyze and evaluate the behavior of firms and their response to changes in market conditions and government policy.

STRATEGIC MATERIALS (SM):

“If you can’t grow it, you have to mine it,” meaning that anything we can’t grow we have to extract from the Earth in one way or another.

In today’s society, it easy to forget that the extraction of minerals from the Earth is an essential activity. From these raw minerals come the refined materials needed for all aspects of the economy - be it rudimentary (simple construction); advanced (high grade steel); or, high tech (computers and cell phones). All sectors of the economy rely on these minerals to thrive.

What constitutes a material as “strategic” or “critical” is subject to an ongoing debate and a key reason for examining this primary national economic sector and its relationship to national security. While the use of the material is important for determining how important a material is; equally important is the accessibility to reliable sources. Compounding this are the factors that international markets often restrict access, rapid transformational technological changes shift the demand for specialty metals, and increasing global urbanization patterns are increasing the demand for basic minerals and metals. It is for these reasons coupled with the long-term potential impacts on the US Defense Industrial Base (DIB) and national economy as a whole, that the study of Strategic Materials (STRATMAT) as an industry is considered an important, if not vital, endeavor for future strategic government advisors and leaders.

The Academic Year 2016-2017 STRATMAT program of study is focused on evaluating the U.S. STRATMAT industry’s ability to support “very long term” (30-50 years) as well as relative “near term” (5-20 years) national security interests. To gain an understanding of how the U.S.
will source these essential materials (means) to meet its strategic ends, the STRATMAT IS investigation is done from three perspectives. First, understanding the science of minerals and the technology of extracting and transforming minerals into materials. Second, understanding what constitutes the “industry” by examining the inter- and intra-play between “players” (political/bureaucratic elites, business elites, and other stakeholder elites) and “drivers” (physical resources, commodities markets, and advance technology). Finally, understanding the inter- and intra-industry interactions from a political economics perspective. The heart of the program is the construction of a rigorous structured assessment ... with specified policy recommendations ... of the global STRATMAT industry’s ability to support the U.S. economy and nation’s security interests.

This assessment will focus on key issues and questions to include:

- What are the implications for U.S. national security of existing and emerging patterns of governance in the U.S. and the global strategic materials industry?
- What are the impacts of national and regional business-government relations on the strategic materials industrial Structure-Conduct-Performance parameters?
- What are the inferences of direct and indirect government interactions in the industry on international competition and high-technology trade?
  - What emerging risks to U.S. national security exist due to the global nature of the strategic materials industry supply chain?
  - What are the potential risks and long-term implications of a China dominated Rare Earth Elements market for U.S. national security?
  - What are the long-term impacts and consequences of emerging extraction, transportation, and manufacturing technologies for the global and U.S. strategic materials industry?

As a “laboratory” for understanding the relationships and interactions of government, businesses, and other stakeholders with regard to national security, the field studies are designed to augment the lectures and invited guest speakers. Domestic travel plans call for visiting various mining, fabrication, and research facilities in Arizona, Ohio, Utah, and Colorado (you go where the geology tells you to go), and as well as in and around the National Capital Region. For international travels, the seminar will go to Canada and then to Chile to compare and contrast extraction operations and government oversight with how it is done in the U.S. A key component of the program-of-study is exploring State economic activities (the nation-state as an entrepreneur, investor, banker, philanthropist, and referee) since it is a major element of the industry along with the investigation into the key issues of the U.S. lattice of regulations, defense stockpiling, and Defense Production Act. The end result should be a better appreciation of a major component of the nation’s primary economic sector that is all too often not understood nor appreciated in assuring the nation’s current and future economic well-being and security.

Strategic Materials – Defining Society, Actualizing Technology

TRANSPORTATION (TRN): The transportation industry is the backbone of global commerce, and enables America’s political, informational, military, diplomatic and economic influence in the global community. The Transportation Industry Study (IS) will look across the broad field of transportation that moves people, goods and services; employs millions of
workers; generates billions of dollars in revenue; and consumes vast resources. This IS will also focus on the importance of the transportation industry on the swift mobilization of the military and support to the sustainment of the armed forces during current and emerging conflicts.

The Transportation IS will examine domestic and foreign freight and passenger transportation, and all the principal modes – maritime (open ocean and inland waterways), trucking, railroad, and air – that comprise the transportation network. Emphasis will be on group study and analysis focusing on the infrastructure required to support the transportation industry, locks, ports, airfields, highways, and rail lines; and the relationship between the public and private sectors’ administration and control of those facilities and investment considerations. Students will examine the role of government in the transportation industry in terms of policy, execution and compliance. This IS will address issues that cut across all modes, to include: economics, operations, technology, systems, infrastructure, regulations, leadership, institutions, and sources of capital. We will meet with private- and public-sector organizations that operate the components of the transportation system; as well as customers, associations, and the government agencies that regulate transportation. We will also visit a variety of transportation facilities.

Globalization, growth in the world’s economy, and transportation security since 9/11 have placed tremendous strains on the transportation network. This IS will examine the issues of congestion, funding for infrastructure, and automation; explore possible ways to increase effective capacity; and meet with public- and private-sector organizations responsible for transportation policy and security. Command and control issues in each of the modes of transportation will also be examined and compared.

Intermodal transportation (i.e., containerization) has grown tremendously in recent years, and involves coordination between maritime shipping, ports, trucking companies, railroads, and multimodal parcel delivery companies. This IS will examine intermodal transportation and the role it plays in supporting the growing global supply chains. Throughout the Transportation IS we will examine the capability of the transportation system and the individual modes to support Department of Defense requirements for mobilization, deployment, and sustainment.

WEAPONS (WPN): It is common knowledge that precision-guided weapons, and the precise battlefield effects they create, have helped the United States achieve tremendous military successes. Our success is not only attributed to precision targeting and delivery, but also to the warheads themselves. From nuclear to non-lethal, today’s technology provides a panoply of weapon choices allowing the military the potential to select the most appropriate means toward the desired end. A neophyte might think that we already have discovered all we need to know about warheads and energetics; however, the technology continues to improve dramatically and we continue to find new and innovative ways to employ the latest smart munitions and evolve the kill chain. This industry study will consider the health of the industry, the sensor-to-shooter cycle examining the strategy, utility, procurement, production and lifecycle issues associated with effective use of weapons in today’s environment. Key Questions/Issues for Consideration:

- Small arms development and procurement--commercial sector interests vs. government requirements.
- Divergent or complimentary concerns?
- Future evolution and availability of small arms for defense and commercial use, what is the near term outlook?
- What will replace the M9 and M4 series of weapons?
  - What is the status/health of energetics production in the U.S.?
  - Potential weapons and energetics off-sets, what’s the next big thing?
  - Developmental/experimental manufacturing techniques and materials, what can we expect to see in the next 5-10 years.
  - Weapons and cyber, the continuing digitization of arms and munitions--advantage or vulnerability?
Appendix B
Industry Report Outline and Format

1. Format. Essentially, this report, much like the Individual Paper, will be formatted using The Chicago Manual of Style (hereafter referred to as Chicago) with some exceptions (Note: Follow the templates that are provided in the sample report below for the report’s preliminary pages, use Chicago for the body text, citations and references). For example, the report is single-spaced and text margins are both right and left justified. Please pay particular attention to the format examples that follow.

2. Page Limit. The report shall not exceed a maximum of 20 single-spaced pages. The page limitation includes text, but not the title page, seminar participants, list of places visited or the reference pages, supplementary endnotes or appendices.

3. Paper Outline. Ten pages are the executive summary; the remaining ten pages include essays intended to address major issues facing the industry under study, including issues of importance to industry stakeholders. Collaborative agreements with organizations sharing mutual interests in the IS research may result in issue discussions included in this section of the industry report. Keep figures to a minimum or add them to an appendix at the end of the report; 20 pages is not a long paper and we want to preserve those pages for you analysis.

a. Cover Page. Sample cover page per Figure 1. No page number on title sheet; all text is centered, use 18 pt font, BOLD, for top section and italicize the Industry Study Name; use 12 pt font. BOLD for bottom section.

b. Abstract and Seminar Members. Page i, sample per Figure 2.
   - Group name centered at the top of the page (bold, 18 pt)
   - Skip one line
   - ABSTRACT: (bold, 12 pt) Then text (non-bold, 12 pt). Note: an abstract is a 60- to 100-word paragraph that details the bottom line conclusions of the report. This is NOT a statement of what was studied or the method of analysis. Rather, the idea is to convince the reader to read on by piquing interest in how the study arrived at these conclusions, and how these conclusions are supported with analysis.
   - Skip one line, and then list the names of the participants in alphabetical order (centered, non-bold, 12 pt). (Note: spell out civilian agencies, but abbreviate department)
   - Skip a line before faculty list.

c. Industry Study Outreach and Field Studies. Top of the page (centered, 12 pt, bold), page ii, sample per Figure 3.
   - Skip a line
   - On Campus Presenters (bold, 12 pt), list company name, city and country
   - Skip a line
   - Field Studies – Domestic (bold, 12 pt), list company name, city and country
   - Skip a line
   - Field Studies – International (bold, 12 pt), list company name, city and country
d. On the next page, begin the text of the report using Chicago format. Pages from here on are numbered 1, 2, 3, etc. Each report shall include the following components:

1) Introduction. A short introduction detailing the purpose of the study and its methodology. Maximum one page.

2) The Industry Defined. Using either the classic structure and conduct definition or a technology definition, define, in the most precise terms possible, the industry under study. This portion of the paper should indicate to the reader the scope and bounds of your study. Maximum one page.

3) Current Condition. Using the analytic tools studied in the Industry Analytics course and Industry Studies classes, and elsewhere, describe the recent past and current performance and condition of your industry. In addressing the overarching issue of whether your industry can support the National Security Strategy, use data and analysis to answer questions you developed for use in engaging industry representatives, including the following questions, and those recommended by your IS faculty:

- What is the current competitive structure of the industry? Is it dominated by a few firms or fragmented among many? Where does competition among firms fall along the spectrum from pure competition to monopoly?

- Are the key firms in the industry economically healthy? (Evaluate employment, revenues, profits, profit margins compared to the cost of funds, leverage/debt ratios, etc., both at the current point in time and trends over the previous five years.)

- How important are the businesses/business units serving your industry to the firms they are part of?

- Are there zero, one, or many, successful business strategies employed by the industry’s key firms and the industry?

- How serious are threats to these strategies from substitutes, suppliers, customers, or foreign competition?

- What is the nature of foreign competition? What are the trends in productivity? How do they compare to international trends?

- What is the opportunity presented by foreign producer and consumer markets? Are U.S. firms capturing these opportunities? Is the industry competitive internationally? (use import and export ratios) Are there subsidies, quotas, trade restrictions, calls for protection?
The bottom line of this section is an assessment of the current condition of the industry and an appraisal of the benefit to the nation of the industry’s resulting allocation process. (Maximum three pages.)

4) Challenges. Use facts and the analytical frameworks you have studied to analyze the major challenges, economic and others, facing this industry. Indicate which challenges will be addressed more fully in the essay portion of the report. Your assessment of the adequacy of the industry's response to these challenges will be addressed in another section of your report. Also discuss your industry's reaction to changing world events, including an examination of the efficacy of any subsequent government action to assist your industry. (Maximum two pages.)

5) Outlook. Project the future health of the industry. As a minimum, address the following questions:

- Can the industry under study support the national security resource requirements? What impediments exist preventing the industry from achieving its full surge and mobilization potential?
- What is the short-term (1-5 years) outlook for the industry? What factors account for your projection?
- What is the long-term (2020-2035) outlook? Factors?
- What political and/or social factors impact the industry's short- and long-term outlook?
- Is your industry positioned to maintain a preeminent position in the global marketplace? If not, what changes must the key firms in the industry undertake to improve the industry’s global position?

This section should close with an assessment of the adequacy of the industry's response to the previously detailed challenges and the appropriateness of the industry's strategy to become or remain a preeminent force in the global marketplace. (Maximum two pages.)

6) Government Goals and Role. What are the “proper” goals and role of the government relative to your industry? What, if any, response should the government make to your outlook assessment and the industry's strategies? What policy issues are involved including those directed at surge and mobilization? Present and analyze specific recommendations and options including those related to the acquisition system's ability to rapidly acquire needed commercial advanced technological equipment. (Maximum two pages.)

7) Essays on Major Issues. This section (total not to exceed ten pages) should include essays intended to address major issues facing the industry under study, including issues of importance to industry stakeholders. Collaborative agreements with organizations sharing mutual interests in the IS research may result in issue discussions included in this section of the industry report. The author's name should appear at the end of each essay. A short title
should precede the essay.

8) Conclusion. A maximum one-page summary of the major conclusions of this study. If readers read no more than your abstract and your conclusion, they should understand your major findings and recommendations relative to your industry's ability to support the national security requirements of the United States.

9) References. This is the report section that demands, but rarely receives, a sufficiently dedicated effort by the seminar. Ensure that all references and data in the report have appropriate citations. Pay particular attention to providing the appropriate page number and volume numbers for journal or periodical article citations. Additionally, if more than one source is used for an endnote, place both sources in the endnote and separate them by a semi-colon.
   • “ENDNOTES” or “BIBLIOGRAPHY” will begin the paper’s reference section
   • All references will be in 10-pt font and Times New Roman
   • There must be a space in between references
   • Page numbers will continue from the overall content section of the paper

10) Appendices. Title the first page of the Appendix section, “APPENDIX”.Subtitle each subsequent appendix with “APPENDIX A”, “APPENDIX B”, etc.

e. In summary, this is a generic outline that is to be followed where appropriate and modified as necessary. However, the level of analysis required by the outline must be maintained. Remember: the Industry Report is an executive summary, not a detailed road map through an industry. The twenty-page maximum (exclusive of title, abstract, authors, places visited and endnote pages) is non-negotiable.
Figure 1: Sample cover page.
INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) 2015

ABSTRACT: The Information Communications Technology (ICT) industry is vital to the national security of the United States because of its significant economic contribution and because of the increasing reliance upon the Internet for commercial and government activities. The US is currently the global leader in the industry, but it faces significant challenges in innovation, human capital, cybersecurity, and governance. To remain the global ICT leader, the US must meet and overcome these challenges and lead the industry in the emerging trends of cloud computing, mobility, security, and the Internet of Things.

Ms. Tahira Ali, Dept of Homeland Security  
COL Abdullah AlShaloob, Royal Saudi Air Force  
BG Lior Carmeli, Israeli Defense Forces  
COL Paul Craft, US Army  
Mr. Mark Cramble, Lockheed Martin  
Mr. Kevin Curry, Dept of the Army  
Ms. Christine Jacobs, Dept of State  
LTC Stanley Malloy, US Army  
Mr. Paul Murphy, Defense Intelligence Agency  
LTC Christopher O’Connor, US Army  
CDR Julia Lopez Slattery, US Navy  
Lt Col David Wallis III, US Marine Corps  
Lt Col Brandon Wilkerson, US Air Force  
Lt Col Patrick Williams, US Air Force  
Ms. Maryann Zelenak, Dept of the Air Force

COL David King, PhD, Canadian Forces (Retired), Faculty Lead  
COL Richard Alteni, J.D., US Army (Retired), Faculty  
Mr. Feza Kopmus, Department of Homeland Security, Faculty  
Col Lynne Thompson, EdD, US Air Force (Retired), Faculty
Industry Study Outreach and Field Studies

On Campus Presenters:
J Capital Research, New York, New York

Field Studies – Domestic:
AT&T, Reston VA
CTIA – The Wireless Association, Washington DC
Defense Information Systems Agency, Fort Meade, MD
Department of Homeland Security, Rosslyn, VA
Information Technology Industry Council, Washington DC
International Business Machines, Washington DC
National Cable and Telecommunication Association, Washington DC
National Telecommunications and Information Administration, Washington DC
National Telephone Cooperative Association (Rural Broadband), Washington DC
Software and Information Industry Association, Washington DC
Sprint, Reston, VA
Telecommunications Industry Association, Washington DC
USCYBERCOM, Fort Meade, MD
Verizon, Reston, VA
Apple, Silicon Valley, California
Arista, Silicon Valley, California
Brocade, Silicon Valley, California
Cisco, Silicon Valley, California
Facebook, Silicon Valley, California
Oracle, Silicon Valley, California
Twitter, Silicon Valley, California

Field Studies – International:
Baidu, Beijing, Peoples Republic of China
China Mobile, Beijing, Peoples Republic of China
BDA China Limited, including speakers from:
The US Information Technology Office, Beijing, Peoples Republic of China
The Conference Board in China, Beijing, Peoples Republic of China
Red Pagoda Resources, Beijing, Peoples Republic of China
Huawei Technologies Co, Shenzhen, Peoples Republic of China
ZTE, Shenzhen, Peoples Republic of China
US Consulate, Guangzhou, Peoples Republic of China
American Chamber of Congress in South China, Guangzhou, Peoples Republic of China
Appendix C
NDU Overnight Parking Request Form

Figure 4: NDU Overnight Parking Request Form

OVERNIGHT OR EXTENDED PARKING AUTHORIZATION

* VEHICLE YEAR/MAKE:

* VEHICLE MODEL/COLOR/LIC:

* OWNERS LAST NAME:

* DATE(S) AUTHORIZED:

* VEHICLE WILL BE PARKED IN □ LINCOLN HALL PARKING LOT
  □ MARSHALL/SWIMMING POOL LOT
  □ SOUTH PARKING LOT

* AUTHORIZED BY NDU SECURITY:

EXPIRES:

Please fill out the form and click submit to forward to Security for authorization!

Updated: January 2016
Appendix D
Faculty Supplement to the IS Handbook

Note: To be provided separately
Appendix E

Guide For Presentation Gifts For Industry Studies

Association
Of The
Industrial College Of The Armed Forces And The Eisenhower School

I-MART

If it’s Tuesday, it must be Belgium!

Do You Know the Way to San Jose?

Been There, Gotta Tee-Shirt, But I’m Not Sure I Did That!

AY 2016-2017
Spring Semester
1. **Introduction.** Along with the looming onset of extended Industry Studies Field Studies comes the annual dilemma of appropriately expressing our appreciation to guest speakers who visit the Eisenhower School and to captains [and lieutenants] of industry and corporate hosts who open their doors to the Eisenhower School on our domestic and international field studies.

With this requirement in mind, the staff of the ICAF/ES Alumni Association I-MART prepared the following background and developed some “lessons-learned” with respect to “trinketizing” people and organizations that support our academic programs.

2. **“Official Presentos” - The Past as Prelude.** Until 2012, the College used to provide each IS seminar with approximately 20 “presentos” that were intended to be ceremoniously presented with great pomp and circumstance to corporations, agencies, companies and/or organizations that hosted IS seminar visits. For the most part, these consisted of wood or wood and copper plaques or acrylic paperweights with the ICAF coat-of-arms, suitable for display in the hosting organization’s company public spaces.

However, it now appears that persistent funding constraints will not allow the College to provide each IS seminar with these types of organizational mementos in the immediate future. On the other hand, it does appear likely that certificates of appreciation mounted in Eisenhower School cover folders will be continue to be provided to each seminar for the same purpose.

3. **“Other” Presentos.** In the absence of “official” mementos provided by the College, the majority of IS seminars have traditionally elected to present additional tokens of appreciation. Generally, these items are procured using personal student funds collected within each IS and administered under the aegis of the seminar treasurer or the designated CINCTRINKET. Oftentimes, the same person performs both functions. In recent years, the primary source for these types of items has been the ICAF/ES Alumni Association Student Store (a.k.a. "I-MART") or the NDU Foundation store in Marshall Hall. On rare occasion, the seminar has taken the initiative to design and procure IS seminar-unique items, such as plaques, photos, and challenge coins from internal funding sources.

The ICAF-ES Alumni Association has a limited array of items that are appropriate to recognize support of the Eisenhower School IS program. Items include coffee cups, key rings, hats, ties, pens, coins, acrylic paperweights, coasters and trivets, and flag lapel pins.

IS faculty or appointed “CINCTRINKETs” can get with Cecile Bradley (Room 119 - Association School Store) or me (Room 432 (my office)) to order and obtain these items to support your program. For your convenience, we will prepare a “Presentation Planning Worksheet” that lists selected merchandise available from the Association that has traditionally been procured to support the Industry Studies program in the past. Prices will be included on the worksheet. The worksheet can also be used as an “order” form. A “sample” form is attached at TAB A. A new form for AY 2016-2017 will be provided by mid-November to allow IS faculty to begin planning their respective “Trinketization” campaigns.
4. **Some Rules of Engagement.** Before you run down to the "I-MART," all lathered up and eager to spend your shekels before they burn a hole in your pocket, you need to think about a couple of things.

First, if you have a speaker coming in, you should try to establish (from a faculty member or a continuity file, if one exists) if that speaker has been to ICAF/ES before. If yes, then it's extremely likely that he or she has probably already received some token of appreciation in the past. If possible, find out what the invited speaker was presented previously. If you can establish that, you can avoid the small embarrassment of presenting the same token of appreciation for the 2nd (or, Heaven forbid) the 3rd time. A number of seminars have indeed kept records of what was presented in previous years. If that’s available, it will prove invaluable. Another source might be a faculty member who has been associated with the particular industry study over the past few years (some of these folks have been here since the First Battle of Bull Run). Of course, you could always call the individual and ask: “Yo, Bubba, what’d we give ya last year?” However, most casual observers would consider that “bad form.” Beyond that, Good Luck!

Next, you should probably think about a “hierarchy” of presentations. As you get into the heart of the program, especially the field studies components, you’ll most likely find that there will be a lot of people you think you need to “trinkerize,” to show the seminar’s appreciation for their efforts in your behalf. Some thoughts on this:

- **Mementos such as framed certificates, magnifier-paperweights, or presentation coins, etc., should go to the “organization.”** It would be appropriate to present it to the highest ranking company representative that you can corral at the time of the visit.

- **A coffee cup or mug or a coaster/trivet is probably most appropriate as a personal token of recognition to either the highest ranking person (who made the decision to host the group) or the individual who did all the leg work in setting up the visit for you.** If the latter is a woman, you may want to think about an Eisenhower “Hermes-style” scarf from I-MART or a small item of jewelry from the NDU Foundation store in Marshall Hall or perhaps flowers from a local florist. Chocolates are also an acceptable gift. The I-MART also has tote bags or book bags that are appropriate for presentation to ladies. The I-MART is in the process of looking into the acquisition of other trinkets appropriate for presentation to women. Get with me or Miss Cecile if you have questions in this respect. Again, it’s best to check and see what was presented to whom the last couple of years, if those types of records are available. Depending on how long they’ve been with the company or organization, the main object of your IS affection probably already has a growing collection of ICAF/ES coffee cups, trivets, coins, etc., so choose wisely. However, given the relatively recent change in the College’s name, it is possible that they will not have received Eisenhower School memorabilia!

- **Other folks you may want to “trinketize” include briefers (lapel pin, coin, coffee cup, pen set); drivers (hat, lapel pin, flag pin, key ring); embassy folks who may have facilitated your IS visit, such as the Defense Attaché, (coffee cup, coin, coaster, pen set, trivet); and flight crews (lapel pins, hats, key rings, pen sets, coins).**
Before you “hit the road” on domestic and international field studies, you need to give some thought to how you plan to schlep this stuff around. **General Rule:** “The smaller the better; the lighter, even more better!!” This can be a challenge, especially 8 days into a two-week international “bag-drag”! Rumors abound that framed ICAF certificates were once observed floating blissfully in the harbor at Cherbourg as the cross-channel ferry carrying an unidentified IS slipped away for Portsmouth! An unfortunate accident no doubt as an ICAF rep was making a presentation to the Captain of the Ferry. Uh-huh.

At any rate, one way to make this task a little easier is to hand-out (before departing) a basic load of trinkets to whoever the student rep is for each visit. That way, most everyone carries along a few items for his/her designated visit; the CINCTRINKET should plan on hauling the M1A2 “Just-in-Time” Universal Trinket Deployment Kit (UTDK) to cover unanticipated contingencies (e.g., flight crews who cater to your needs on transatlantic flights, secretaries and executive assistants who help you coordinate short-fuse travel/hotel/car rental arrangements on site, etc.).

Keep a record of all that you buy and all that you give away. When you purchase from the Association, we’ll provide a receipt for your records. This will protect your “6” if anyone wonders where the money went, and it will also provide a record of presentations to help next year’s seminar.

Finally, never forget the cardinal rule of industry studies travel:

**SEMPER GUMMY**

(“Always Flexible”)

One final word. If you hand out the trinkets to members of your seminar before you go, DON’T FORGET TO PACK ‘EM. It’s a tad embarrassing to have to have to present your personalized, sterling silver, Eisenhower School coat-of-arm-adorned nose-hair trimmer to a CEO of a French defense firm because you left your basic issue of trinkets in the trunk of your Porsche.

**5. How Can I-MART Help?** Your high-performing, incredibly motivated (and quite good-looking) I-MART team of Cecile and Mauler can do several things to ease this prodigious task.

First, as mentioned above, we’ll provide each IS seminar with a presentation planning worksheet/order form for I-MART merchandise that has proven practical and appropriate in the past. The I-MART has, or shortly will have, adequate stock for most items. For the immediate requirements, e.g., speakers and day trips, we can work it on an “as required,” cash and carry basis. If you need something, come see me or Cecile or drop either of us an E-mail. We’ve consciously determined to not burden our student sales associates with the dreaded “Trinketization Program,” except in the case of dire emergencies.
For planning purposes, Cecile will be on-site in the I-MART Tuesdays-Wednesdays-Thursdays from 1000-1400.

Second, the order form we’ve prepared should be used for both domestic and international field studies. You tell us what you think you need, we’ll fill the order to the best of our ability, and get the due-out items to you as soon as they are received.

For AY 2016-2017, emergency or short-term purchases to cover an immediate unplanned requirement will be “pay-as-you-go.”

For long-term planning, this year the I-MART will attempt to operate on a “consignment” basis. With this approach, the IS seminar will forecast requirements utilizing the “Presentation Planning worksheet” at TAB A. The I-MART will endeavor to fill the order to the maximum extent possible utilizing on-hand stock and order the additional required items. Once items are received (or on hand), the I-MART will issue them to the seminar on a consignment basis. We will “settle-up” after domestic field studies and a second time after international field studies. Unused items will be returned to the I-MART, and seminars will only pay for the trinkets they presented. **Please note that we can’t accept for damaged or soiled items that cannot be put back in stock and resold.**

**Refunds for Returned Items.** As a rule, the I-MART is not administratively structured to make a large number of refunds in a timely manner. For that reason, I strongly encourage you to be as specific as possible in your planning and ordering. The goal is to return to the U.S. with all trinkets gone! That said, if you do have small quantities of serviceable merchandise that you couldn’t give away, sell, bury, or don’t want for your own use, please see me personally [don’t bother Cecile or the student sales associates] and I’ll work the refund issue.

**Please provide us an estimate of your requirements as soon as possible using the “Presentation Planning Worksheet.” We will no doubt have to order additional inventory to support you, so the sooner the better. Average order-ship time is 6 weeks!**

Finally, flag Pins. In the past, a majority of IS seminars have elected to purchase lapel pins with the US Flag and the flag of the countries being visited (i.e. US/UK, US/France, USA/CSA, etc.). The I-MART arranges for the Association to purchase them in bulk at a reasonable cost (usually between $ 2.90 and $ 3.15 each -- unless you're going to someplace exotic that changes flags every six weeks, (like Cleveland) and then resell them to the IS seminars at cost or just above cost. As a rule, seminars purchase a pin for every student and faculty on the field study plus a few extra to hand out as a courtesy. Usually 20 to 24 is a good planning figure. We’ve included a separate order form (TAB B) for this requirement. Please let us know what you want (if you want). If you want to see what these look like, swing by the store in room 119; we have a bunch of them already in stock, albeit in small quantities. We need to order fairly soon to have them in-hand prior to international field studies.

Your I-MART staff hope this massive diatribe proves useful to you in some way. At any rate, if you have any questions, please stop by and see me. I’ll be delighted to share my minuscule
store of knowledge with you. Have a great second semester and enjoy the industry studies. Remember the words of the revered Sage of the Serengeti, Pumbaa:

**HAKUNA MATATA**

Paul “Mauler” Severance  
CINCSCHLOCK/CINCTRINKET  
Cecile “Cece” Bradley  
I-MART Manager and Entrepreneur

Attachments:

TAB A: Presentation Planning Worksheet  
TAB B: Flag Pin Order Form
## Appendix E – Tab A
### Presentation Planning Worksheet
#### AY 2016-2017

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<td>US/SOUTH AFRICA*</td>
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<tr>
<td>US/UNITED ARAB EMIRATES</td>
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</table>

* = Some stock exists

**TOTALS**

DATE: __________ AMOUNT: $ _____ CHECK# ______ CASH: _____ CREDIT: _____

RECEIVED BY: ___________________________ DATE: ______________