

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

American Public University System

The Ultimate Advantage is an Educated Mind

School of Security and Global Studies

INTL 621:

Signals Intelligence (SIGINT)

Credit Hours: 3

Length of Course: 8 Weeks

Prerequisite: None

Course Description (Catalog)

INTL 621: Signals Intelligence (SIGINT) (3 credit hours)

The evolution of Signals Intelligence (SIGINT) over the span of the last several decades has introduced a significant number of issues for the U.S. Intelligence Community and policy makers. Understanding and evaluating these issues will ground students in the present-day challenges facing the community and equip them with an understanding of SIGINT activities in the information age. This course focuses on the evolution of SIGINT, examines present day issues, and challenges students to identify and evaluate a relevant topic facing the SIGINT community through the integration of three key learning activities.

Course Objectives

After successfully completing this course, you will be able to:

- CO-1: Evaluate the growth of Signals Intelligence.
- CO-2: Analyze processes and implication of collecting, processing, exploiting, and disseminating Signals Intelligence.
- CO-3: Evaluate the ethical implications surrounding the use of Signals Intelligence.
- CO-4: Evaluate the growth of the Information Domain and the implications for Signals Intelligence.

Course Delivery Methods

This course, delivered via distance learning, will enable students to complete academic work in a flexible manner, completely online. Course materials and access to an online learning management system will be available to each student. Online assignments are due by **Sunday at 11:55 pm ET** and include all written assignments, examinations, and research papers submitted for grading. Weekly Forum questions (accomplished in groups in a Forum) require an initial response by **Thursday at 11:55 pm ET**, with all other required responses due by **Sunday at 11:55 pm ET**. The assigned faculty will support the students throughout this eight-week course.

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All correspondence in the classroom will occur within the classroom's messaging system. Refrain from using the APUS email system to contact the instructor.

Course Resources

Required Course Textbooks

There is no required Textbook for this course.

Other Required Reading & Resources

Please refer to the Weekly Requirements below to see the full list of reading requirements. These additional resources are found in the classroom.

Evaluation Procedures

The course grade is based on the following assessments:

Discussion Forums: 20 percent

Discussion questions will be provided, and posts should reflect an assimilation of the readings and respond to the assigned topic(s). Students are required to provide a substantive initial post by **Thursday at 11:55 pm ET** and respond to two or more classmates by **Sunday 11:55 pm ET**. Forum posts are graded on timeliness, relevance, knowledge of the weekly readings, and the quality of original ideas. (Assignment Length: Main Posts are at least **500-word minimum** with a **250-word minimum** response to at least two classmates).

White Paper: 20 percent

This is an opportunity for the student to identify a key Signals Intelligence-related issue and to develop a white paper that takes a specific stance at resolving the issue. Students will identify and summarize the key points of the issue up front, develop the issue's background and identify key problems, identify solutions, and wrap-up the issue by concluding with key facts. Turabian format is mandatory with in text citations and a properly formatted **Title** and **Reference** page, double-spaced Times New Roman 12 font. (Assignment Length: **5-6 pages**). **Due at the end of Week 3.**

Literature Review: 25 percent

Literature reviews are designed to do two things: 1) give the reader an overview of sources you have explored while researching a particular topic or idea and 2) demonstrate how your research fits into the larger field of study, in this case, Signals Intelligence. Your literature review should have between **10 -15 sources**. Turabian format is mandatory with in text citations

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and a properly formatted **Title** and **Reference** page, double-spaced Times New Roman 12 font. (Assignment Length: **6-8 pages**). **Due at the end of Week 5.**

Final Paper: 35 percent

Based on the White Paper and Literature Review, students will complete a Final Paper consisting of **13-15 pages**. The page length does not include the cover page, the reference list, and any appendices. **The Final Paper is due at the end of Week 7.**

Weekly Requirements

Week 1: The Evolution of Signals Intelligence

This class starts with exploring the evolution of Signals Intelligence as a key and unique intelligence discipline. Signals Intelligence has always been grounded in a technological framework. As communications technology evolved in the early 20th century and with the advent of wireless communications, early pioneers were able to discern the value of “eavesdropping” into adversary communications. Starting in the First World War and throughout the interwar period, the role of Signals Intelligence was recognized as a valuable source of intelligence. It was also viewed with distrust and unethical. Its strategic value, however, was recognized in the Second World War where the U.S. and its Allies were able to strategically use Signals Intelligence as key enabler to achieve victory. Throughout the Cold War, Signals Intelligence continued to provide valuable insights into Soviet intentions, however, with advanced in communications technology, the issues of collecting, processing, and exploiting communications continued to have greater implications on the growing U.S. Signals Intelligence establishment. These growth implications would continue to frame the current challenges in the modern age.

Objective(s)

- Evaluate the growth of Signals Intelligence.

This Week’s Activities

- Seminar Discussion
- Weekly Total Required Readings: 220 Pages

Week 2: Signals Intelligence and the Modern Age

The global operating environment in the modern age has been characterized by its dynamic growth, globalization, and shifting of national power across the globe. The modern age has also witnessed the advent of large and sophisticated international terrorist groups, criminal organizations, and global conglomerates. In short, there is a spectrum of adversaries as opposed to one major one. With the fall of the Soviet Union in the early 1990s, the global operating

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environment has also become increasingly interconnected in terms of communications technology. These dynamic changes and trends have had profound implications and influence on Signals Intelligence. They have also challenged U.S. and Allied Signals Intelligence efforts and their ability to gain insight into adversaries threatening their interests.

Objective(s)

- Evaluate the growth of Signals Intelligence.
- Analyze processes and implication of collecting, processing, exploiting, and disseminating Signals Intelligence.

This Week's Activities

- Seminar Discussion
- Weekly Total Required Readings: 378

Week 3: Ethical and Policy Implications for Signals Intelligence

The role of Signals Intelligence has always been surrounded with controversy and ethical implications. Nascent U.S. Signals Intelligence efforts during the year's leading up to the Second World War ceased when former Secretary of State Henry Stimson stated: "Gentlemen do not read each other's mail." The dismantling of U.S. Signals Intelligence efforts in the late 1920's set the United States at a disadvantage with the threat of another global conflict loomed in the 1930's—all because of an ethical objection. This is not meant to suggest that ethics do not play a role in intelligence activities. As modern-day disclosures of U.S. intelligence activities in the post 9/11 era have highlights, these ethical issues have significant policy implications. This week explores some of the ethical issues and policy implications that surround Signals Intelligence activities.

Objective(s)

- Evaluate the ethical implications surrounding the use of Signals Intelligence.

This Week's Activities

- Seminar Discussion
- White Paper
- Weekly Total Required Readings: 200

Week 4: Support to Domestic Intelligence

Up to this point in the class, we witness the foundation and growth of Signals Intelligence into the modern era and explored some of its ethical and policy implications. The Joint Publication 2-0 on *Joint Intelligence* defines Signals Intelligence as: "intelligence produced by exploiting *foreign* communications systems and noncommunications emitters" (2013 B-5) While

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Signals Intelligence is not conducted domestically in the strictest definition of the term, the modern day global operating environment, is framed by interconnected and global communications. As such, the traditional definition of strictly *foreign* communications has come into question. We also need to recognize that global threats have both foreign and domestic elements. Given the complexities of the global communications and threat environment, the Signals Intelligence community and electronic surveillance techniques are used to support domestic intelligence activities. This week focuses on some of the issues and challenges with Signals Intelligence support to domestic intelligence activities.

Objective(s)

- Evaluate the ethical implications surrounding the use of Signals Intelligence.

This Week's Activities

- Seminar Discussion
- Weekly Total Required Readings: 395

Week 5: The Growth and Future of the Information Domain

As we have witnessed thus far, the growth of communications technology has had a profound effect on Signals Intelligence activities. That said, however, the present growth and the future implications of the Information Domain goes beyond the mere advances of a communications technology. The Information Domain is a framework based upon several physical, informational, and cognitive dimensions. In its physical sense, the Information Domain consists of underlying technologies ranging from servers, routers, communications devices, computers, and many other devices. In its informational sense, the digitization of data and the aggregation of large data sets results a treasure trove of information that contains significant intelligence value. Lastly, in the cognitive sense, the Information Domain not only affects how our policymakers and military leaders make decisions, but it also affects our modern society and how we live. The various aspects of the Information Domain and its anticipated growth into the future have significant implications for Signal Intelligence. This week focus on laying the foundation and gaining an understanding of these issues while next week will focus on the nexus between the Information Domain and Signals Intelligence.

Objective(s)

- Analyze processes and implication of collecting, processing, exploiting, and disseminating Signals Intelligence.
- Evaluate the growth of the cyber domain and the implications for Signals Intelligence.

This Week's Activities

- Seminar Discussion

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- Literature Review
- Weekly Total Required Readings: 310

Week 6: The Nexus of the Information Domain and Signals Intelligence

Last week focused on gaining a foundational understanding of the Information Domain and some of the implications of its future growth. As the Information Domain continues to grow in its scope, interconnectedness, and access to all levels of human endeavor, the ability of the U.S. Signals Intelligence community to gain access, process, and exploit foreign adversary communications remains a daunting challenge. This week delves into exploring these issues and challenges within the backdrop of continued and exponential growth in the Information Domain.

Objective(s)

- Analyze processes and implication of collecting, processing, exploiting, and disseminating Signals Intelligence.
- Evaluate the growth of the cyber domain and the implications for Signals Intelligence.

This Week's Activities

- Seminar Discussion
- Weekly Total Required Readings: 352

Week 7: Signals Intelligence Support to Information Operations

With the advent and exponential growth of the Information Domain, the concept and mission of Information Operation has grown in significance within national security and military circles. While controlling information, engaging in propaganda and counterpropaganda efforts have always been part of national security and military operations, the scope and impact of the Information Domain on these and other Information Operations related activities has been significant. Additionally, since much of the Signals Intelligence community and its activities relation to the Information Domain, Signals Intelligence support to Information Operations is a fundamental enabler to this mission. This week examines some of these implications and challenges amidst a global and complex operating environment.

Objective(s)

- Evaluate the growth of the Information Domain and the implications for Signals Intelligence.

This Week's Activities

- Seminar Discussion
- Final Paper

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- Weekly Total Required Readings: 229

Week 8: The Future of Signals Intelligence

As we have seen throughout the course, the growth of Signals Intelligence has had a profound influence and role within the U.S. Intelligence Community. From its early days in the early 20th Century, Signals Intelligence played a key role in enabling the United States and its Allies win the Second World War. Additionally, over the span of several decades and especially since the cessation of the Cold War and the rise of the Information Domain, the future role of Signals Intelligence is framed by many issues ranging from its ability to process Big Data sets to infringing on privacy. This class concludes with exploring some of the future implications of Signals Intelligence as the global operating environment continues to grow in its complexity.

Objective(s)

- Evaluate the growth of Signals Intelligence.
- Evaluate the growth of the Information Domain and the implications for Signals Intelligence.

This Week's Activities

- Seminar Discussion
- Weekly Total Required Readings: 135

Policies

Plagiarism Policy

As indicated in the Student Handbook, there is a **zero-tolerance policy** regarding plagiarism. Students receive an automatic zero for any plagiarized assignments, including forums. Please see the University policies in the Student Handbook.