



LIS 6709
Cyber Intelligence
80834 001
Fall 2026

Course Information

Delivery Method: All Online

Instructor Name

Stephen Gary

Instructor Information

Name: Stephen Gary

Email: sgary@usf.edu

Office Hours

By Appointment

Welcome Message

Welcome to Cyber Intelligence!

University Course Description

This course reviews the main actors, targets, threats, and other troublesome

activities in cyberspace. It builds a foundation for understanding how cyber intelligence and counterintelligence can support enterprise and national cybersecurity.

Course Requisites

Prerequisite(s):

Corequisite(s):

Course Purpose

This course teaches you about the main cyber threat actors, their targets, threats, and other troublesome activities in cyberspace. It builds a foundation for understanding how cyber intelligence and counterintelligence can support enterprise and national cybersecurity.

This is a core course for the MSCIIIS and MSIS - Cyber Intelligence programs.

Like many things in life, “you get out of it what you put into it.” “Where there’s a will, there’s an A!” Bottomline, learn and have fun learning!

Cyber Intelligence is art and science... be creative!

In the 2014 National Intelligence Strategy, Cyber Intelligence appeared for the first time as one of the intelligence community’s core mission objectives. “Cyber intelligence is the collection, processing, analysis, and dissemination of information from all sources of intelligence on foreign actors’ cyber programs, intentions, capabilities, research and development, tactics, and operational activities and indicators; their impact or potential effects on national security,

information systems, infrastructure, and data; and network characterization, or insight into the components, structures, use, and vulnerabilities of foreign information systems” (p.8).

A shorter definition is, “Cyber intelligence is the acquisition and analysis of information to identify, track, and predict cyber [threat] capabilities, intentions, and activities that offer courses of action to enhance decision-making^[1].”

My simple definition is, “Cyber intelligence is conducting intelligence (prioritize, collect, analyze, produce) in, related to, and for cyberspace.” Cyber intelligence can be used for intelligence, defensive, and offensive purposes. Cybersecurity is optimized with cyber intelligence.

An effective cybersecurity enterprise requires a robust intelligence capability. Intelligence drives priorities, resource allocation and risk posture by providing a context for technical and non-technical analyses of risks and threats.

Tactical (or Functional) intelligence addresses the “what” and “how” of cyber threats. It includes information on host and network-based indicators, malware functionality, and vulnerabilities. It describes the tactics, techniques and procedures (TTPs) used by various threat actors. Strategic intelligence addresses the questions of “who” and “why.” It includes information on industry-specific targeting, TTP trends, and the intent, capabilities and motivations of the threat actors.

Analyzing threats in cyberspace requires an understanding of the operating environment, especially the information environment within the operating environment, the ability to collect and evaluate information, a capacity for integrating technical/functional and strategic analyses, and a capability for providing timely, accurate and clear assessments to key stakeholders.

[1]
Townsend, T., Ludwick, M., McAllister, J., Mellinger, A., & Sereni, K. (2013). *SEI Innovation Center Report: Cyber Intelligence Tradecraft Project--Summary of Key Findings*. Pittsburgh, PA: The Software Engineering Institute (SEI) Innovation Center at Carnegie Mellon University. (p.2)

Course Format

This course will be delivered online via Canvas using weekly asynchronous modules.

Student Learning Outcomes

1. Use and create technologies to retrieve, aggregate, and organize information to develop and evaluate new knowledge.
2. Analyze and apply that knowledge to an organization's mission and strategic objectives by generating and analyzing courses of action.
3. Express clearly reasoned opinions and communicate effectively in writing, oral presentation, and visual display.

Course Objectives

This course will provide an overview of the cyber intelligence discipline, to include the levels of cyber intelligence; discuss the spectrum of cyber conflict with emphasis on the main cyber threat actors, their intentions, likely targets, and common TTPs/tools; and focus on writing intelligence assessments and reports. It builds a foundation for understanding how cyber intelligence and counterintelligence can support cybersecurity and contribute more broadly to a business or national security mission. It traces the history of cyber threats; evaluates the different forms of cyber conflict from hacktivism to cyber warfare; identifies and describes some of the key states and non-state actors posing a threat to cybersecurity; describes what is currently known about “insider threats” to information systems; examines how espionage (national and corporate) is evolving in the cyber realm; reviews research on cyberbehavior and its implications for the “human dimension” of cybersecurity; and explores how to integrate technical, social and strategic data in cyber threat analysis.

Required Texts and/or Readings and Course Materials

You will need a computer with high-speed Internet connection and Microsoft Office. You will use Canvas, USF's Learning Management System (LMS) for all coursework.

Great news - No Textbook to Buy! I will provide all the reading, watching, and listening material via Canvas.

Supplementary (Optional) Texts and Materials

Open Source Intelligence Techniques: Resources for Searching and Analyzing Online Information, Newest Edition, by Michael Bazzell. CCI Publishing.

Website:

<http://inteltechniques.com/book1.html>

USF Bookstore:

<http://sftampa.bncollege.com>

Look up the book under “Find Your Textbooks” (semester, LIS, 4673, section#)

Amazon:

<https://www.amazon.com/Open-Source-Intelligence-Techniques-Information/>

How to Succeed in this Course

This is the terminology (and similar) you should be familiar with before this course begins (Google them and get a cursory understanding of each):

Terminology	You	Should	Know:
Intelligence: OSINT SIGINT GEOINT HUMINT MASINT IC (all agencies)	Intelligence Process PIR RFI Analysis Collection Dissemination Targeting	Cyber: FC ² Cybersecurity IT Network IP Address MAC Address Server Router OSI Model	Hackers Crackers Hacktivism White Hat Black Hat Script Kiddie DoS/DDoS XSS/SQL Inject Encryption

Legend for highlighted words in Modules:

READ = read entire article or section of book

SCAN = at a minimum, read summary and conclusion, all bolded words, and the first and last sentence of each paragraph

NOTE: Page #s, if listed, are based on the pdf page #, not the actual page # of the article or book (if no page #s are listed, READ or SCAN all pages)

LISTEN = listen to audio file

WATCH = watch video

TAKE = take quiz/exam

WRITE = write a paper (Word) and/or assessment (Word) and/or briefing (Powerpoint)

POST = post a blog or post a document in Canvas

EMAIL = email a product to the instructor

Academic Continuity

For students in the MSCIS program or MSIS - Cyber Intelligence program, you will take LIS6670 Advanced Cyber Intelligence after this course.

In the event of an emergency, it may be necessary for USF to suspend normal operations. During this time, USF may opt to continue delivery of instruction through methods that include, but are not limited to: Canvas, Teams, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor Canvas for each class for course-specific communication, and the USF, College, and Department websites, emails, and [ALERTUSF](#) messages for important general information ([USF Policy 6-010](#)).

Communication

“Raise Your Hand” (Discussion Forums) in Canvas is the preferred mode of communication regarding the course (non-personal matters). Email is the preferred mode of communication for all personal matters (e.g., grade issues, etc.). Please allow adequate time for responses (up to 24 hours during the week and up to 48 hours over a weekend). Please be aware that Florida has a broad public records law and email is not confidential. If you require confidentiality you may contact me by telephone or in-person. Please use proper “netiquette” when

communicating with your fellow students or me.

Grading Scale

Grading Scale (%)		
90-100		A
80 - 89		B
70 - 79		C
60 - 69		D
0 - 59		F

Grade Categories and Weights

Weight (%)	Assessment
20	Course readings, videos, podcasts, lectures and discussions
20	Cyber Intelligence Assessments on topics (7)
20	Quizzes (7)
20	Final Project
20	Final Exam
100	Total

Instructor Feedback Policy & Grade Dissemination

Feedback on discussions and assessments (all assignments) is provided weekly.

Grades for all assignments are provided weekly.

Rubrics loaded in Canvas will be used to determine grades for each assignment.

Graded tests and materials in this course will be returned individually only by request. You can access your scores at any time using "Grades" in Canvas. Please note that scores returned mid-semester are unofficial grades.

The current university policy concerning incomplete grades will be followed in this course. Incomplete grades are given only in situations where unexpected emergencies prevent a student from completing the course and the remaining work can be completed the next semester. Your instructor is the final authority on whether you qualify for an incomplete. Incomplete work must be finished by the end of the subsequent semester or the “I” will automatically be recorded as an “F” on your transcript.

Major Topics and Course Schedule

Module 0 (Syllabus)

Introduction

Module 1 (Week 1)

Cyber Intelligence & Cyber Conflict

Module 2 (Week 2)

Cyber Threat Actors

Module 3 (Week 3)

Cyber Targets

Module 4 (Week 4)

Cyber Threat Actor Intentions

Module 5 (Week 5)

Cyber Threat Actor Tactics, Techniques & Procedures/Tools & Technical Info

Module 6 (Week 6)

Cyber Behavior, Social Media, OSINT, Insider Threat & Counterintelligence

Module 7 (Week 7)

Cyber Operations & Emerging Technologies

Module 8 (Week 8)

Cyber Intelligence Report (Final Project)

USF Core Syllabus Policies

USF has a set of central policies related to student recording class sessions, academic integrity and grievances, student accessibility services, academic disruption, religious observances, academic continuity, food insecurity, pregnancy and related conditions, and sexual harassment that **apply to all courses at USF**. Be sure to review these online:

<https://www.usf.edu/provost/faculty-success/resources-policies-forms/core-syllabus-policy-statements.aspx>

Student Recordings

Florida Statute 1004.097 Free Expression on Campus

Students may, without prior notice, record video or audio of a class lecture for a class in which the student is enrolled for their own personal, educational use (USF Policy 10-048). A class lecture is defined as a formal or methodical oral presentation as part of a university course intended to present information or teach enrolled students about a particular subject. Recording class activities other than class lectures, including but not limited to lab sessions, student presentations (whether individually or part of a group), class discussion, clinical presentations such as patient history, academic exercises involving student participation, test or examination administrations, field trips, private conversations between students in the class or between a student and the faculty member is prohibited. Recordings may not be used as a substitute for class participation and class attendance and may not be published or shared without the written consent of the faculty member. Failure to adhere to these requirements may constitute a violation of the USF Student Conduct Code.

Course Policies: Grades

First Day Attendance Policy:

The Module 0 Student Introduction (Discussion) will count as your First Day Attendance, which is due the first Thursday of the course.

Late Work Policy:

Late assignments will result in an "F" for that assignment barring an emergency situation; all late assignments need to be coordinated with the instructor ASAP.

Make-up Exams Policy:

If a student cannot be present for an examination for a valid reason (validity to be determined by the instructor), a make-up exam will be given only if the student has notified the instructor in advance that s/he cannot be present for the exam. Make-up exams are given at the convenience of the instructor.

Extra Credit Policy:

There are no extra credit opportunities.

Rewrite Policy:

Rewrites are allowed with instructor approval.

Exam Retention Policy:

Exams are retained in Canvas per Canvas guidelines.

Final Examinations Policy:

All final exams are to be scheduled in accordance with the University's final examination policy.

Grades of "Incomplete"

An Incomplete grade ("I") is exceptional and granted at the instructor's discretion only when students are unable to complete course requirements due to illness or other circumstances beyond their control. The course instructor and student must complete and sign the "I" Grade Contract Form that describes the work to be completed, the date it is due, and the grade the student would earn factoring in a zero for all incomplete

assignments. The due date can be negotiated and extended by student/instructor as long as it does not exceed two semesters for undergraduate courses and one semester for graduate courses from the original date grades were due for that course. An "I" grade not cleared within the two semesters for undergraduate courses and one semester for graduate courses (including summer semester) will revert to the grade noted on the contract.

Campus Free Expression

It is fundamental to the University of South Florida's mission to support an environment where divergent ideas, theories, and philosophies can be openly exchanged and critically evaluated. Consistent with these principles, this course may involve discussion of ideas that you find uncomfortable, disagreeable, or even offensive.

In the instructional setting, ideas are intended to be presented in an objective manner and not as an endorsement of what you should personally believe. "Objective" means that the idea(s) presented can be tested by critical peer review and rigorous debate, and that the idea(s) is supported by credible research.

In this course you may be asked to engage with complex ideas and to demonstrate an understanding of the ideas. Understanding and engaging with an idea does not require you to believe it or to agree with it.

Course Policies: Student Communication

WhatsApp, GroupMe, and Student-to-Student Communication: While students may use digital communication tools (WhatsApp, GroupMe, etc.) to communicate with fellow students, it is important to remember that academic integrity policies still apply in these environments. Informing others about the contents of tests is prohibited by the official regulation, as is receiving unauthorized information about an examination. Students are expected and required to immediately report instances of such violations to the instructor.

Course Policies: Technology and Media

Canvas:

This course will be offered via USF's learning management system (LMS), Canvas. If you need help learning how to perform various tasks related to this

course or other courses being offered in Canvas, please view the following [videos](#) or consult the Canvas [help guides](#). You may also contact USF's IT department at (813) 974-1222 or help@usf.edu.

Online Exam Proctoring:

All students must review the syllabus and the requirements, including the online terms and video testing requirements, to determine if they wish to remain in the course. Enrollment in the course is an agreement to abide by and accept all terms. Any student may elect to drop or withdraw from this course before the end of the drop/add period.

Online exams and quizzes within this course may require online proctoring. Therefore, students will be required to have an operational webcam with a microphone when taking an exam or quiz. Depending on the test requirements, a side-view camera may be required. This setup will require the use of a separate USB webcam. Students understand that remote recording devices are purchased and controlled by the student and that recordings from any private residence must be done with the permission of any person residing, and present, in the residence at the time of testing. Students should use a private testing space that meets the instructor's specified test-setting requirements, as needed to eliminate any consent and privacy concerns. Students with concerns may discuss the location of an appropriate space for the recordings with their instructor or advisor.

Students must ensure that any recordings do not invade any third-party privacy rights and accept all responsibility and liability for violations of any third-party privacy concerns.

Students are fully responsible for ensuring all technological requirements necessary to take an online proctored exam, including, but not limited to, a reliable computer, a functional camera with a microphone (USB or internal, depending on test requirements), a high-speed internet connection, and up-to-date software, including the latest versions of [Chrome browser](#) and the [Honorlock Chrome extension](#) are available. Depending on the exam, students may also need to download the Honorlock app.

Setup information will be provided prior to taking the online proctored exam. For

additional information, please visit the [USF online proctoring student FAQ](#) and [Honorlock student resources](#).

Course Policies: Student Expectations

Health and Wellness

Your health is a priority at the University of South Florida. We encourage members of our community to look out for each other and to reach out for help if someone is in need. If you or someone you know is in distress, please make a referral at www.usf.edu/sos so that the Student Outreach & Support can contact and provide helpful resources to the student in distress. A 24-hour licensed mental healthcare professional, offered through the counseling center, is available by phone at 813-974-2831, option 3. Please remember that asking for help is a sign of strength. In case of emergency, please dial 9-1-1.

Title IX Policy

USF is committed to fostering a safe and respectful learning environment, free from sex discrimination and sexual harassment, in accordance with Title IX and USF Policy 0-004. If a student shares an experience of sexual harassment, sexual assault, stalking, or relationship violence with a USF employee (including faculty), that employee will notify the Title IX Office. This allows the Title IX Office to send the student an email with information about support resources and options—if it is safe to do so. Students are not required to respond to this email. The Title IX Office is a private resource. Information is shared only on a need-to-know basis to provide students with support measures. To speak to a confidential resource, students may contact USF Center for Victim Advocacy at 813-974-5757. Confidential resources do not notify the Title IX Office unless the student requests it. For more information about Title IX, available resources, or to make a report, please visit www.usf.edu/title-ix.

Discrimination / Harassment

Discrimination or harassment of students based on protected characteristics is prohibited by Title VI, the Florida Educational Equity Act, and [USF Policy 0-007](#). Protected characteristics include race, color, national origin, shared ancestry, religion, age, sex, disability, genetic status, marital status, and veteran status. If a student shares an experience of harassment or discrimination with a USF employee (including faculty), that employee will notify the Student Equal Opportunity Office. This allows the Student EO Office to send the student an email with information about support resources and options—if it is safe to do so. Students are not required to respond to this email. The Student EO Office is a private resource. Information is shared only on a need-to-know basis to provide students with support measures. For more information about Student EO, available resources, or to make a report, please visit www.usf.edu/student-eo

Course Hero / Chegg Policy

The USF Policy on Academic Integrity specifies that students may not use websites that enable cheating, such as by uploading or downloading material for this purpose. This does apply specifically to Chegg.com and CourseHero.com – almost any use of these websites (including uploading proprietary materials) constitutes a violation of the academic integrity policy.

Professionalism Policy

Per university policy and classroom etiquette; mobile phones, iPods, etc. must be silenced during all classroom and lab lectures. Those not heeding this rule will be asked to leave the classroom/lab immediately so as to not disrupt the learning environment. Please arrive on time for all class meetings. Students who habitually disturb the class by talking, arriving late,

etc., and have been warned may suffer a reduction in their final class grade.

Turnitin.com

In this course, turnitin.com may be utilized. Turnitin is an automated system which instructors may use to quickly and easily compare each student's assignment with billions of web sites, as well as an enormous database of student papers that grows with each submission. Accordingly, you may be expected to submit all assignments in both hard copy and electronic format. After the assignment is processed, as instructor I receive a report from turnitin.com that states if and how another author's work was used in the assignment. For a more detailed look at this process visit <http://www.turnitin.com>.

Netiquette Guidelines

- Act professionally in the way you communicate. Treat your instructors and peers with respect, the same way you would do in a face-to-face environment. Respect other people's ideas and be constructive when explaining your views about points you may not agree with.
- Be sensitive. Be respectful and sensitive when sharing your ideas and opinions. There will be people in your class with different linguistic backgrounds, political and religious beliefs or other general differences.
- Proofread and check spelling. Doing this before sending an email or posting a thread on a discussion board will allow you to make sure your message is clear and thoughtful. Avoid the use of all capital letters, it can be perceived as if you are shouting, and it is more difficult to read.
- Keep your communications focused and stay on topic. Complete your ideas before changing the subject. By keeping the message on focus you allow the readers to easily get your idea or answers they are looking for.
- Be clear with your message. Avoid using humor or sarcasm. Since people can't see your expressions or hear your tone of voice, meaning can be misinterpreted.

Email and Discussion Board Guidelines

- Use the subject line effectively by using a meaningful line of what your email or discussion is about.
- Keep your emails and postings related to the course content. You should not post anything personal on a discussion board unless it is requested by the instructor.
- Any personal, course or confidential issues should be directly communicated to the instructor via email. The discussion boards are public spaces; therefore, any issues should not be posted there.

End of Semester Student Evaluations

All classes at USF make use of an online system for students to provide feedback to the University regarding the course. These surveys will be made available at the end of the semester, and the University will notify you by email when the response window opens. Your participation is highly encouraged and valued.

Food and Drink Policy (for in-campus sessions only).

Please adhere to the firm policy of no beverages (other than bottled/capped water), food, tobacco products, or like items in the classroom. Your understanding of the necessity for this policy and cooperation will be greatly appreciated. This policy will be strictly enforced.

Generative AI

While the university integrates GenAI tools into our academic integrity policies, misrepresenting AI-generated work as one's own goes against our [central tenets](#). Transparency builds trust and understanding around the appropriate use of AI technologies.

Learning Support and Campus Offices

Academic Accommodations

Students with disabilities are responsible for registering with Student Accessibility Services (SAS) in order to receive academic accommodations. For additional information about academic accommodations and resources, you can visit the SAS website.

[SAS website for the Tampa campus and Sarasota-Manatee Teachout site.](#)

[SAS website for the St. Pete campus.](#)

Academic Support Services

The USF Office of Student Success coordinates and promotes university-wide efforts to enhance undergraduate and graduate student success. For a comprehensive list of academic support services available to all USF students, please visit the [Office of Student Success website.](#)

Canvas Technical Support

If you have technical difficulties in Canvas, you can find access to the Canvas guides and video resources in the “Canvas Help” page on the homepage of your Canvas course. You can also contact the help desk by calling 813-974-1222 in Tampa or emailing help@usf.edu.

[USF IT Services](#)

Center for Victim Advocacy

The [Center for Victim Advocacy](#) empowers survivors of crime, violence, or abuse by promoting the restoration of decision making, by advocating for their rights, and by offering support and resources. Contact information is available online.

Counseling Center

The Counseling Center promotes the wellbeing of the campus community by providing culturally sensitive counseling, consultation, prevention, and training that enhances student academic and personal success. Contact information is available online.

[Counseling Center website for the Tampa campus and Sarasota-Manatee Teachout site.](#)

[Counseling Center website for the St. Pete campus.](#)

Tutoring

The Tutoring Hub offers free tutoring in several subjects to USF undergraduates. Appointments are recommended, but not required. For more information, email

asctampa@usf.edu.

[Tutoring website for the Tampa campus and Sarasota-Manatee Teachout site.](#)

[Tutoring website for the St. Pete campus.](#)

Writing Studio

The Writing Studio is a free resource for USF undergraduate and graduate students. At the Writing Studio, a trained writing consultant will work individually with you, at any point in the writing process from brainstorming to editing. Appointments are recommended, but not required. For more information or to make an appointment, email: writingstudio@usf.edu.

[Writing studio website for the Tampa campus and Sarasota-Manatee Teachout Site.](#)

[Writing studio website for the St. Pete campus.](#)

Student Ombuds Office

Florida Statute 1006.51 and Florida Board of Governors Regulation 6.011 require that all public institutions provide ombuds services to students. The Student Ombuds Office at USF is a confidential, impartial, informal, and independent resource for students experiencing challenges related to the university. Ombuds can help students safely explore options, clarify processes, and consider next steps. [Learn more or make an appointment at usf.edu/student-ombuds.](https://usf.edu/student-ombuds)

Important Dates to Remember

Refer to USF Calendars.