



ISM 4321
Cybersecurity Threat Intelligence
School of Information Systems and Management
Information Assurance and Cybersecurity
Management Program

COURSE SYLLABUS

Last Updated: 12/5/2022

Instructor: Giti Javidi
Office Location: C217
Office Hours: Tue 2:00-300p (via MS Teams)
Phone Number: 941-359-4257
Email: javidi@usf.edu

Semester: Spring 2023
Class Meeting Days: Asynchronous
Class Meeting Time: Asynchronous
Class Meeting Location: Canvas

IMPORTANT DATES:

January 9	Classes begin
January 13	Drop/add ends; fee liability/tuition payment deadline
January 16	Martin Luther King, Jr. Holiday; no classes and USF offices closed
February 6	Spring graduation application due
February 20	Midterm grading opens
March 7	Midterm grading closes
March 13	Spring Final grading opens
March 13-19	SPRING BREAK
March 25	Spring last day to withdraw; no refund & no academic penalty
March 27	Summer/Fall registration begins
April 22-28	Test Free Week
April 28	Spring last day of classes
Apr. 29-May 4	Final Exam Week
May 9	Final grading closes
May 12	Final grades visible on OASIS

COURSE PREREQUISITES: ISM4641 and Junior or Senior standing

CATALOG DESCRIPTION:

Exploration of cyber intelligence key concepts, tools and terminologies used by professionals in the field. Investigation of practical applications of cyber threat intelligence tools and models in real-world events.

COURSE OBJECTIVE: The objective of this course is to introduce students to cyber threat intelligence key concepts, tools and terminologies used by professionals in the field. Real world case studies provide a vehicle for students to understand intelligence indicators and learn tools and techniques to detect potential attacks in order to protect organizational systems. This course gives students the cybersecurity intelligence skills needed as part of the Cybersecurity Security Analyst Professional Certificate program.

REQUIRED TEXTBOOK:

 MindTap for Ciampa's CompTIA CySA+ Guide to Cybersecurity Analyst (CS0-002) 2nd edition, 1 term Printed Access Card, ISBN 9780357678008

SUPPLEMENTAL READINGS:

- 📖 Roberts. (2021). Cyber threat intelligence: the no-nonsense guide for CISOs and security managers (1st ed. 2021.). Apress. <https://doi.org/10.1007/978-1-4842-7220-6> (available at USF Library)
- 📖 Friedman, J., & Bouchard, M. (2015). Definitive Guide to Cyber Threat Intelligence: Using Knowledge about Adversaries to Win the War against Targeted Attacks [EBook]. Cyberedge Press. ([Free to download](#)).
- 📖 Practical Cyber Intelligence: How action-based intelligence can be an effective response to incidents, Wilson Bautista Jr, March 29, 2018, ISBN-10: 9781788625562, ISBN-13: 978-1788625562 (available at the USF library)
- 📖 The Cyber Intelligence Handbook: An Authoritative Guide for the C-Suite, IT Staff, and Intelligence Team, David M. Cooney Jr., 2019, ISBN-10: 1082404381, ISBN-13: 978-1082404382 (available at the USF library)

COURSE TOPICS: This course will cover the following content areas:

- Threat data and intelligence
- Threat actors and types
- Integrating Threat Intelligence and Operations
- Digital forensics
- Incident response
- Vulnerability Management
- Scanning for Vulnerabilities
- Threat hunting
- Software and hardware security
- Data protection and privacy

STUDENT LEARNING OUTCOMES: Upon completion of this course, students will be able to:

1. Identify different types of common cyber threats and vulnerabilities
2. Explain security threats associated with embedded and specialized devices
3. Identify different attacks and threat actors
4. Define threat modelling strategies and framework
5. Examine the tools and techniques for collecting cyber threat intelligence
6. Utilize tools to assess vulnerabilities
7. Utilize tools for collecting threat Data and intelligence
8. Apply best practices for software and hardware security
9. Utilize tool for infrastructure controls
10. Explain threat hunting tactics
11. Apply appropriate incident response procedures
12. Apply specialized digital forensic techniques for targeting adversaries
13. Utilize threat intelligence to support organizational security
14. Run and analyze vulnerability scans
15. Monitor endpoints, networks, and email
16. Conduct data analysis for privacy and security
17. Apply security techniques to mitigate risks

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. The course will include recorded lectures, reading assignments, tests (midterm and Final), quizzes, discussions and homework (posted on CANVAS).
- **Recorded videos and instructor notes:** Course participants are not are not permitted to sell notes or video recording of class lectures.

COURSE STRUCTURE:

To assist you in your efforts to master the knowledge and competencies necessary to be successful, this course is structured according to the following:

- All course material, including recorded lectures, exams, quizzes, assignments, discussions, and lab exercises will be available on Canvas. There will be 16 Modules on Canvas, each representing a week. Each module will include the learning objectives of the week, checklist for the tasks to be completed within that week, and all teaching material and all the deliverables (i.e. quiz, assignment, discussion question, etc.) for that week.
- There will be weekly discussion, total of 12 discussions.
- There will be 13 quizzes based on weekly readings to insure mastery of the topics.
- There will be 2 assignments in this course. For these assignments, you will be required to analyze and provide solutions to scenario-based cases.
- There will be two exams; midterm (Week 8) and final exam (Week 16).
- There will be weekly critical thinking and lab exercises. These exercises are meant to be used to provide hands-on exercises.
- Please remember that our week starts on Sunday and ends on Sunday. The assigned tasks are always due on the 11:59p of the Sunday of that week. Always go through the checklist for each week to see if there is anything due on the Sunday of that week. You can also use the course calendar as a checklist.
- There will be weekly reading assignments. The assigned readings for each week are available for each weekly module.

GRADING POLICIES

- **Late Work Policy:** All assigned work is expected to be turned in on time, by 11:59 p.m. of the due date. Late assignments will be graded with penalty unless prior permission has been granted by your instructor. There are no make-ups for in-class discussions. Assignments turned in late will be assessed with penalty of 5 points for each day late. Assignments will not be accepted if overdue by more than five days.
- **Extra Credit Policy:** An assignment or two, or other activities may have an extra credit component associated with them. Points earned in this manner will not be included in the assignment or exam grade or in the final course average. These will be considered after course letter grades have been tentatively assigned. Extra credit may result in an increase in your final letter grade, especially in borderline situations, and will never reduce your grade. For this reason, you should take full advantage of extra credit opportunities.
- **Incomplete Policy:** An “I” grade may be awarded to a student only when a small portion of the student’s work is incomplete and only when the student is otherwise earning a passing grade. The time limit for removing the “I” is to be set by the instructor of the course. For undergraduate students, this time limit may not exceed two academic semesters, whether or not the student is in residence, and/or graduation, whichever comes first. For graduate students, this time limit may not exceed one academic semester. “I” grades not removed by the end of the time limit will be changed to “IF” or “IU,” whichever is appropriate.
- **Make-up Exams Policy:** A make-up exam will be given only if the student has notified the instructor in advance that s/he cannot take the exam on the assigned date.
- **Final Examinations Policy:** The final exam will be scheduled in accordance with the University’s final examination policy.

GRADING SCALE

USF policy requires that all students receive a graded assignment or examination prior to the semester’s drop/withdraw date (please refer to important dates on page 1 of this syllabus). Student performance for this course will be evaluated based on quizzes, exams, assignments, quizzes, lab exercises, and discussion participation, as detailed below. Below is a summary for the determination of the final grade and an explanation for each component:

Deliverables	Percentage of Grade
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Quizzes (12)	10%
Exams (2)	30%
Lab Exercises/Assignments	30%
Assignments (2)	20%
Class Participation/Discussion	10%
Total	100%

A+ = 97-100; A=94-96; A- =90-93; B+ = 87-89; B=84-86; B- = 80-83;
C+=77-79; C = 74-76; C - + 70-73; D = 60- 69; F = 59 or below

COURSE EXPECTATIONS

- **Attendance Policy:** There is no live lecture attendance requirement. Everything will be placed on Canvas.
- **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 – any use of these websites (including uploading proprietary materials) constitutes a violation of the academic integrity policy.
- **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 expected and valued.
- **Turnitin.com:** In this course, turnitin.com will 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 will 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>.
- **Syllabus Terms:** 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.
- **Honorlock for the Exams:** Online exams and quizzes within this course will require online proctoring. Therefore, students will be required to have a webcam (USB or internal) with a microphone when taking an exam or quiz. Students understand that this remote recording device is purchased and controlled by the student and that recordings from any private residence must be done with the permission of any person residing in the residence. To avoid any concerns in this regard, students should select private spaces for the testing. Students with concerns may discuss 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 strictly responsible for ensuring that they take all exams using a reliable computer and high-speed internet connection. Setup information will be provided prior to taking the proctored exam. To use Honorlock, students are required to download and install the [Honorlock Google Chrome extension](#). For additional information please visit the [USF online proctoring student FAQ](#) and [Honorlock student resources](#).

STANDARD UNIVERSITY POLICIES

Policies about disability access, religious observances, academic grievances, academic integrity and misconduct, academic continuity, food insecurity, and sexual harassment are governed by a central set of policies that apply to all classes at USF. These may be accessed at: <https://www.usf.edu/provost/faculty/core->

WEB PORTAL INFORMATION

Every newly enrolled USF student receives an official USF e-mail account. Students receive official USF correspondence and Canvas course information via that address. The web portal is accessed at <http://my.usf.edu>.

GENERAL INSTRUCTION FOR STUDENTS

- **Academic Support Services:**

[The Information Commons](http://www.usf.edu/information-commons) provides students with individual and group study spaces, computers, printers, and various media equipment for temporary use. The Information Commons is staffed by librarians, learning support faculty, tutors, and technology and e-learning specialists. Students challenged by the rigors of academic writing, mathematics, or other course content are urged to contact their professors early in the semester to chart out a plan for academic success, and/or regularly use the tutoring services provided by Learning Support Services (<http://www.usf.edu/academics/academic-resources/information-commons/tutoring.aspx>) which are provided at no cost to students.

- **Career Success Center:**

Students can explore careers through activities such as job shadowing, mentoring, and internships. Whether students will be pursuing graduate school or seeking employment, Career Services can help develop a plan to reach their next destination. Students can prepare professional documents, practice for the interview and attend employer or graduate school information sessions. Access these resources or schedule an appointment with career advisors at www.usf.edu/career-services.

LEARNING SUPPORT and CAMPUS OFFICES

Tampa Campus	<p>Tutoring Hub: 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</p> <p>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</p> <p>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.</p> <p>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.</p>
St. Petersburg Campus	<p>Student Success Center: The Student Success Center provides free tutoring and writing consultations. Contact information is available online.</p> <p>Wellness Center: The Wellness Center provides counseling and medical services, as well as prevention programs and victim advocacy. Contact information is available online.</p>
Sarasota-Manatee Campus	<p>Tutoring and Writing Support: Learning Support Services provides free tutoring and writing consultations for a variety of courses and subjects such as, Accounting, Biology, Chemistry, Finance, Math & Statistics, Physics, and Spanish. Make an appointment online.</p> <p>Counseling and Wellness Center: The Counseling and Wellness Center is a confidential resource where you can talk about incidents of discrimination and harassment, including sexual harassment, gender-based crimes, sexual assault, stalking, and domestic/relationship violence. Call 941-487-4254</p> <p>Victim Advocate: A Victim Advocate is available 24/7 by calling (941) 504-8599.</p>

	For assistance leave a message with your phone number and your call will be returned as soon as possible. The Victim Advocate is available to assist victims of crime, sexual assault, and partner violence.
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COURSE FAQ

How to communicate with me? You can either (i) send me an email directly or through Canvas, or (ii) call/text me or (iii) set up an appointment to see me in my office. When emailing directly or through Canvas, please write the appropriate subject and include your name at the bottom of the email. The emails should be composed professionally and the language should be courteous and respectful.

How NOT to communicate with me?

1. Please do not email me from a non-USF email account.
2. Please do not submit deliverables to me through email. All deliverables must be submitted through Canvas.
3. Please do not reply to an email that I send to the entire class without changing the subject line, unless your question is about that subject. If you are using the "Reply" button as a means to get my email address in the "To" line, please change the subject line and also delete all previous text from that email, if your email pertains to something else.

How will I communicate with you? I will send announcements through Canvas. The announcements should arrive in your inbox. If you send me an email through Canvas, I will respond back through Canvas. If you send me an email directly, I will respond back to your email address. I will make every attempt to reply to your emails within 24 hours during weekdays. I cannot guarantee a response within 24 hours on weekends. Occasionally emails do tend to go to my Spam Mail folder so if you have not received my response within 24 hours, please either resend your email or call my office phone number and leave a message in case I am not in my office. I will provide feedback on your assignments through Canvas.

How to Succeed in this Class?

- **Check Canvas and emails daily for announcements:** I will periodically send emails and announcements. I encourage you check them daily.
- **Read the syllabus:** It is *a lot of trouble* to prepare so detailed a syllabus. You should assume I had a reason for it. I want to make sure that you understand the course structure and expectations and have your questions answered on the first week. This will help us all have a more productive semester. Please read *every word* in this syllabus by end of the first week and ask me any questions.
- **Complete the reading assignments:** You will get a lot more out of this class if you complete the assigned readings. In my experience, students who don't complete the reading either never complete it or try to cram it all in just before the exams. That doesn't work. Most of the time, unsatisfactory grades are due to procrastination than any other cause. Please give yourself ample time each week to complete the assigned readings for this class.
- **Watch the recorded lectures/external videos:** Some modules will include recorded lectures and LinkedIn Learn videos. The lectures that are prepared by me contain topics that I think are the most important in the course. Please watch them.
- **Do not procrastinate on completing assignments/labs:** You cannot pass the course without doing at least most of the assignments. The homework assignments build upon one another. If you get behind, you will find it very difficult to catch up.
- **Complete the quizzes:** Completing the quizzes will prepare you for the exams. So, I encourage you to complete them by the due dates.
- **The bottom line "Do not procrastinate."**