

**CSC/COSC 4341-110, Security and Risk Management****Fall 2023**

Texas A&M University-Central Texas

**COURSE DATES, MODALITY, AND LOCATION**

This is an 100% ONLINE course – there will be NO “official” face-to-face classroom time. This class meets online during the 16-week semester that begins Aug 28, 2023, and ends Dec 15, 2023.

The A&M-Central Texas Canvas Learning Management System (Canvas) [<https://tamuct.instructure.com>] will be our primary resource for the class information. You will use the Canvas username and password provided to you to logon to this system. The course syllabus, schedule, supplemental readings, class announcements, power point slides, learning modules, homework assignments, exams and other course related documents will be posted on Canvas. Each student is responsible for the posted material and should check Canvas at least daily for updates. The course outline in this syllabus shows the basic schedule for the semester.

**INSTRUCTOR AND CONTACT INFORMATION**

**Instructor:** Dr. Francisco Polzin

**Office:** Online (no physical office).

**Email:** For course related information communications, please use Canvas messaging feature. If Canvas is unavailable, please email the instructor using your TAMUCT student email address.

**Office Hours:** I do not have an office on campus, but I will be available for students on an appointment basis to meet online. Send me Canvas message to schedule an appointment.

**COBA Department Contact Information**

Phone Number: (254) 519-5437

Email: [cobainfo@tamuct.edu](mailto:cobainfo@tamuct.edu)

Fax#: (254) 501-5825

**Emergency Warning System for Texas A&M University-Central Texas**

**SAFEZONE.** SafeZone provides a public safety application that gives you the ability to call for help with the push of a button. It also provides Texas A&M University-Central Texas the ability to communicate emergency information quickly via push notifications, email, and text messages. All students automatically receive email and text messages via their myCT accounts.

Downloading SafeZone allows access to push notifications and enables you to connect directly for help through the app.

You can download SafeZone from the app store and use your myCT credentials to log in. If you would like more information, you can visit the [SafeZone](http://www.safezoneapp.com) website [[www.safezoneapp.com](http://www.safezoneapp.com)].

To register SafeZone on your phone, please follow these 3 easy steps:

1. Download the SafeZone App from your phone store using the link below:
  - [iPhone/iPad](https://apps.apple.com/app/safezone/id533054756): [<https://apps.apple.com/app/safezone/id533054756>]
  - [Android Phone / Tablet](https://play.google.com/store/apps/details?id=com.criticalarc.safezoneapp) [<https://play.google.com/store/apps/details?id=com.criticalarc.safezoneapp>]
2. Launch the app and enter your myCT email address (e.g. {name}@tamuct.edu)
3. Complete your profile and accept the terms of service

**For updates on COVID information,** please monitor the University [website](https://www.tamuct.edu/covid19/) [<https://www.tamuct.edu/covid19/>]

**COURSE INFORMATION****Course Overview and description**

Examine the fundamental principles and topics of Information Technology Security and Risk Management at the organizational level. Learn critical security principles and best practices to plan, develop and perform security tasks. Special emphasis on hardware, software, processes, communications, applications, and policies and procedures with respect to organizational IT Security and Risk Management.

**Course Objectives**

A student successfully completing this course will be able to:

1. Describe the fundamental principles of information technology security.
2. Explain the concepts of threat, evaluation of assets, information assets, physical, operational, and information security and how they are related.
3. Recognize the need for the careful design of a secure organizational information infrastructure.
4. Identify both technical and administrative mitigation approaches.
5. Demonstrate an understanding of security technologies.
6. Discuss the need for a comprehensive security model and its implications for the security manager or Chief Security Officer (CSO).
7. Explain basic cryptography, its implementation considerations, and key management.
8. Determine appropriate strategies to assure confidentiality, integrity, and availability of information.

**Skill Outcomes:**

1. Perform risk analysis and risk management.
2. Create and maintain a comprehensive security model.

3. Design and guide the development of an organization's security policy.
4. Apply risk management techniques to manage risk, reduce vulnerabilities, threats, and apply appropriate safeguards/controls.

### Required Reading and Textbook(s)

**Book Title:** Principles of Information Security, 7th Edition

**Author:** Michael E. Whitman, Herbert J. Mattord

**ISBN:** 9780357506448

**Note:** *An electronic version of the book may be available. A student of this institution is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer. Supplemental Material: The course textbook will be supplemented with other materials including handouts, software demonstration, PowerPoint presentations, etc.*

### COURSE REQUIREMENTS

Course Requirements includes point values for each, not by percentage.

**Reading Assignments:** All assigned chapters will be used as a basis for canvas course contents. Students are expected to study the required chapters and go through review questions after each chapter every week. Students are required to check Announcement page in Canvas on a regular basis to get any updates regarding the course assignments and due dates.

Students are required to complete one midterm exam, one final exam, four class tests, five Canvas discussion questions, four homework assignments, and one final term project. The topic of all exams will be declared in the Canvas course website. Canvas discussions are counted towards class participation points for this course. Students are required to update their Canvas settings (Account > Settings > Notifications) to allow notifications to be sent for all course-related activities.

**Tests:** There will be four (4) tests for this online course. All tests will be conducted online through the Canvas course website. Each test will be worth 40 points. The class tests will be timed and must be completed once they are started.

**Exams:** There will be one (1) Midterm and one (1) Final exam. The Midterm Exam will cover Chapters 1-6 and will be worth 200 points, and the Final Exam will cover chapters 7-12 and worth 200 points. The Final Exam is NOT comprehensive for this course. Only those chapters covered after the Midterm Exam will be considered for the Final Exam.

**Assignments:** Four (4) homework assignments related to IT Security and Risk Management will be required. The due dates of these assignments will be posted on Canvas. Each assignment will be worth 40 points. The assignment grading rubric will be provided in the Course Portal.

**Canvas Discussion:** Since this course is entirely online, there is NO lecture or other face-to-face interaction. To simulate an in-person class environment, there will be multiple discussion questions throughout the semester. You will be expected to participate by posting an initial post of your own and respond to at least two other student's posts. Discussion questions will be posted at the beginning of the week, and you will have until the Sunday of the same week to complete.

NOTE: There may be more than one question in some weeks.

There will be at five (5) discussion questions for the course. Canvas Discussion posts are worth 80 points. If the quality of your postings are not sufficient, you will not earn full points. You are expected to contribute to the class discussions in a meaningful fashion. That means:

- Contributing new and relevant information to the course discussion based on readings of the textbook.
- Commenting in a positive manner.
- Building on the remarks of your fellow students – i.e., improving upon what someone else said.
- Posing questions of your fellow students; and sharing quotes, websites, and othersupplementary information. All sources must be cited using APA formatted citations.
- Demonstrating practical application of the week's key concepts from your professional or personal experience.

“Substantive” does NOT include “I agree,” “Great point,” or “You're wonderful” type postings. These types of postings are examples of positive “teaming”. These statements are fine, but not by themselves. They do not add depth or breadth to the discussion. A “substantive” initial posting should include:

- Your thesis (main point)
- Your supporting arguments
- A reference to class or outside material to support your thesis
- An example from your experiences to support your thesis.

### Term Project

There will be one (1) Final Term Project worth 200 points. The complete project requirements will be posted in Canvas. You will be given a scenario about malicious activity on a fictitious company's network.

The final term project's objectives are:

- To practice the formal procedure of system/network security analysis and planning.
- To examine the vulnerability and security needs of a private organization.
- To devise strategies to overcome potential malicious attacks, threats, and risks

The Term Project is a four to six (4-6) page paper in which the student will:

- Analyze five (5) or more specific, credible threats to the indicated network and organization.
- For each threat, explain the likely impact of a successful attack.
- Propose at least two (2) security controls from each control type necessary to address the vulnerabilities exploitable using techniques from the five (5) threats identified.
- Analyze at minimum three (3) or more risks of data loss and data theft which currently exist in the indicated network, operating systems and applications.
- Explain in detail the potential impact of the three (3) or more selected risks for data loss and data theft.
- Propose at least one (1) security control from each control type (administrative, logical/technical, and physical) which would effectively mitigate/offload/eliminate the identified data loss and theft risks.
- Provide an overview of at least two (2) hardware/software products which provide the features necessary to implement proposed security controls.

**Grading Criteria**

Activity	Quantity	Points per Activity	Total
Tests	4	40	160
Assignments	4	40	160
Midterm Exam	1	200	200
Final Exam	1	200	200
Canvas Discussions	5	16	80
Final Term Project	1	200	200
<b>Course Total</b>			<b>1000</b>

**Posting of Grades**

All grades will be posted on the Canvas Grade book. Students can monitor their progress in this course using Canvas Portal. Students can expect to see their grades within one (1) week of the closing of class tests, exams, and assignments. Students are expected to visit Canvas course webpage regularly to get any update regarding this online course. All updates regarding homework and tests will be posted under the "Announcements" tab in Canvas course portal.

**COURSE OUTLINE AND CALENDAR****Complete Course Calendar**

Please see the Course Summary below with all key course dates.

**Important University Dates**

Important university dates from the current Academic Calendar can be found at the following URL: <https://www.tamuct.edu/registrar/academic-calendar.html>

**TECHNOLOGY REQUIREMENTS AND SUPPORT****Technology Requirements**

This course will use the A&M-Central Texas Instructure Canvas learning management system. We strongly recommend the latest versions of Chrome, Firefox, Edge, or Safari browsers. Canvas will run on Windows, Mac, Linus, iOS, android, or any other device with a modern web browser. **Canvas no longer supports any version of Internet Explorer.**

Logon to A&M-Central Texas Canvas [<https://tamuct.instructure.com/>] or access Canvas through the TAMUCT Online link in myCT [<https://tamuct.onecampus.com/>] by clicking on the "TAMUCT Online Canvas" tile. You will then log in through our Microsoft portal.

Username: Your MyCT email address. Password: Your MyCT password

**Canvas Support**

Use the Canvas Help tab, located at the bottom of the left-hand menu, for issues with Canvas. You can search the support articles or use the Email, Call, or Chat buttons at the bottom of the support pop-up to contact the Canvas Help Desk.

For issues related to course content and requirements, contact your instructor.

**Online Proctored Testing**

Texas A&M University-Central Texas uses Proctorio for online identity verification and proctored testing. This service is provided at no direct cost to students. If the course requires identity verification or proctored testing, the technology requirements are: Any computer meeting the minimum computing requirements, plus web camera, speaker, and microphone (or headset). Proctorio requires use of the Chrome web browser with their custom plug in installed.

**Other Technology Support**

For log-in problems, students should contact Help Desk Central, 24 hours a day, 7 days a week.

Email: [helpdesk@tamu.edu](mailto:helpdesk@tamu.edu)

Phone: (254) 519-5466

[Web Chat](http://hdc.tamu.edu): [<http://hdc.tamu.edu>]

Please let the support technician know you are an A&M-Central Texas student.

**UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES****Warrior Center for Student Success**

The Warrior Center for Student Success is a comprehensive academic support department at A&M-Central Texas, dedicated to fostering an environment of excellence and empowerment among its student body. The center offers a wide range of programs and services to ensure every student reaches their full potential, and is a haven for students seeking guidance, resources, and a strong support network to excel in their educational journey.

**ADA Access and Accommodations:** Texas A&M University-Central Texas ensures that students with disabilities have equal access to educational opportunities by providing appropriate accommodations and support services. If you believe you have a physical, learning or socio-emotional disability requiring reasonable accommodations, please visit [Access and Inclusion](https://www.tamuct.edu/student-affairs/access-inclusion.html) [<https://www.tamuct.edu/student-affairs/access-inclusion.html>] for more details or contact the Office of Access and Inclusion, WH-212; (254) 501-5836. Any information you provide is private and confidential.

**Success Coaching and Peer Mentoring:** Our experienced Success Coaches work one-on-one with students to develop personalized action plans, set academic goals, and build effective study strategies, time management skills, and resilience. Our Peer Mentors provide a valuable support system, offering guidance, encouragement, and a

relatable perspective to help students navigate their academic and personal challenges. For more details call 254-501-5836 or 254-501-5928 or visit [Academic Support](https://www.tamuct.edu/student-affairs/academic-support.html) [https://www.tamuct.edu/student-affairs/academic-support.html]. Click the link to schedule a session (virtual or in-person) with a success coach [bit.ly/3q7uB50](https://www.tamuct.edu/student-affairs/academic-support.html#success-coach) or visit WH, 111.

**Testing Services:** We offer a secure and comfortable environment for students and members of the community to take courses and distance learning exams, as well as placement tests and professional certification exams. Our Testing Service also offers resources and support referrals for testing related challenges (test anxiety, learning disabilities, etc.) and supports all approved ADA accommodations. Call (254) 519-5830 or visit the [Testing Center](https://www.tamuct.edu/testing-center/) [https://www.tamuct.edu/testing-center/].

**Tutoring and Supplemental Instruction Services:** Our team of qualified Tutors and Supplemental Instructors assist students in various non-writing subjects, promoting academic comprehension and enhancing learning outcomes. Click the link to schedule a tutoring session with a TAMUCT tutor (virtual or in-person) or view tutor availability [bit.ly/43O6wNz](https://www.tamuct.edu/student-affairs/academic-support.html#tutoring). You may also chat live with a remote tutor 24/7 for a variety of subjects through our partnership with Tutor.com, an online tutoring platform that is free to all TAMUCT students. To learn more please visit [Tutoring Services](https://www.tamuct.edu/student-affairs/academic-support.html#tutoring) [https://www.tamuct.edu/student-affairs/academic-support.html#tutoring] or call (254) 501-5836 or visit the Tutoring Hub in Warrior Hall, 111.

### Academic Integrity

Texas A&M University-Central Texas values the integrity of the academic enterprise and strives for the highest standards of academic conduct. A&M-Central Texas expects its students, faculty, and staff to support the adherence to high standards of personal and scholarly conduct to preserve the honor and integrity of the creative community. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. All academic misconduct concerns will be referred to the Student Conduct Office. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

For more information regarding the [student conduct process](https://www.tamuct.edu/student-affairs/student-conduct.html), [https://www.tamuct.edu/student-affairs/student-conduct.html].

If you know of potential honor violations by other students, you may [submit a referral](https://cm.maxient.com/reporting.php?TAMUCentralTexas), [https://cm.maxient.com/reporting.php?TAMUCentralTexas].

### Drop Policy

If you discover that you need to drop this class, you must complete the [Drop Request](#) Dynamic Form through Warrior Web.

[https://federation.ngwebsolutions.com/sp/startSSO.ping?PartnerIdpId=https://eis-prod.ec.tamuct.edu:443/samlSSO&SpSessionAuthnAdapterId=tamuctDF&TargetResource=https%3a%2f%2fdynamicforms.ngwebsolutions.com%2fSubmit%2fStart%2f53t0502-4f36-be43-f02a4202f612].

Faculty cannot drop students; this is always the responsibility of the student. The Records and Admissions Office will provide a deadline on the Academic Calendar for which the form must be completed. Once you submit the completed form to the Records and Admissions Office, you must go into Warrior Web and confirm that you are no longer enrolled. If you still show as enrolled, FOLLOW-UP with the Records and Admissions Office immediately. You are to attend class until the procedure is complete to avoid penalty for absence. Should you miss the drop deadline or fail to follow the procedure, you will receive an F in the course, which may affect your financial aid and/or VA educational benefits.

### Pregnant and/or Parenting Students Rights and Accommodations

Texas A&M University-Central Texas supports students who are pregnant, experiencing pregnancy-related conditions, and/or parenting. In accordance with requirements of [Title IX and related guidance from US Department of Education's Office of Civil Rights](#), the Associate Dean in the Division of Student Affairs, (254) 501-5909, can assist students who are pregnant, experiencing pregnancy-related conditions, and/or parenting by provide flexible and individualized reasonable accommodations. Students should seek out assistance as early in the pregnancy as possible through the [Pregnancy & Parenting webpage](https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html) [https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html]. For more information, please visit [Student Affairs](https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html) [https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html]. If you would like to read more about these [requirements and guidelines](#) online, please visit the website [http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf].

[Title IX of the Education Amendments Act of 1972](#) specifically prohibits discrimination against a student based on pregnancy, childbirth, false pregnancy, termination of pregnancy, or recovery from any of these conditions [https://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.html].

Students experiencing any form of discrimination due to any of these conditions are encouraged to reach out to the Title IX Coordinator, 254.519.5716, [titleix@tamuct.edu](mailto:titleix@tamuct.edu), Founders Hall 317B, or the Associate Dean of Student Affairs, 254.501.5909, Warrior Hall 105.

### Title IX Rights and Reporting Responsibilities

Texas A&M University-Central Texas is committed to creating a safe and open learning environment for all students. If you or another student has experienced any form of gender discrimination or sexual misconduct, including sexual harassment, sexual assault, dating/domestic violence, and/or sex-based stalking, help and support are available. Our university strongly encourages all members of our campus community to report incidents and seek support for gender discrimination and sexual misconduct through the Title IX Office. You may contact the Title IX Office at 254.519.5716, [titleix@tamuct.edu](mailto:titleix@tamuct.edu), Founders Hall 317B, or learn more by visiting the [Title IX webpage](https://www.tamuct.edu/compliance/titleix.html) [https://www.tamuct.edu/compliance/titleix.html].

Please be aware that that under [Title IX, Texas Senate Bill 212](#), and [System Regulation 08.01.01](#), [https://policies.tamus.edu/08-01-01.pdf] all university employees are mandated reporters and are required to disclose information about suspected or alleged violations as listed above and defined in System Regulation 08.01.01. If the Title IX Office receives information about an incident, they will reach out to offer information about resources, rights, and procedural options as a member of the campus community. Although I have an obligation to report, you will, in most cases, control how your case will be handled. When working with the Title IX Office you will have access to resources and accommodations but also have the opportunity to express if you wish to move forward with an investigation. Our goal is to make sure you are aware of the options available to you as a student. Community members are not required to respond to this outreach.

If you or another student wishes to speak to a confidential employee who does not have this reporting responsibility, you can contact the [Student Wellness & Counseling Center](https://www.tamuct.edu/student-affairs/student-counseling.html), [https://www.tamuct.edu/student-affairs/student-counseling.html], 254.501.5955, or [swacc@tamuct.edu](mailto:swacc@tamuct.edu), located in Warrior Hall Room 207L or the Student Support Advocate, 254.501.5978 or [ssa@tamuct.edu](mailto:ssa@tamuct.edu), located in founder Hall Room 317D.

### University Library & Archives

The University Library & Archives provides many services in support of research across campus and at a distance. We offer over 350 electronic databases containing approximately 1,203,947 eBooks and 134,750 journals, in addition to the 96,879 items in our print collection, which can be mailed to students who live more than 50 miles from campus. Research guides for each subject taught at A&M-Central Texas are available through our website to help students navigate these resources. On campus, the library offers technology including cameras, laptops, microphones, webcams, and digital sound recorders.

Research assistance from a librarian is also available 24 hours a day through our online chat service, and at the reference desk when the library is open. Research sessions can be scheduled for more comprehensive assistance, and may take place virtually through WebEx, Microsoft Teams or in-person at the library. [Schedule an appointment here](#)

[<https://tamuct.libcal.com/appointments>]. Assistance may cover many topics, including how to find articles in peer-reviewed journals, how to cite resources, and how to piece together research for written assignments.

Our 27,000-square-foot facility on the A&M-Central Texas main campus includes student lounges, private study rooms, group workspaces, computer labs, family areas suitable for all ages, and many other features. Services such as interlibrary loan, TexShare, binding, and laminating are available. The library frequently offers workshops, tours, readings, and other events. For more information, please visit our [Library website](#)

[<https://tamuct.libguides.com/index>]

### **University Writing Center**

Located in Warrior Hall 416 and online, the University Writing Center (UWC) at Texas A&M University–Central Texas (A&M–Central Texas) is a free service open to all A&M–Central Texas students. The face-to-face hours of operation are from 10:00 a.m.-5:00 p.m. Monday and Thursday in Warrior Hall 416. Online tutoring is available Monday thru Thursday from 10:00 a.m.-5:00 p.m. and from 6:00-9:00 p.m. and on Saturdays from 12:00-3:00 p.m.

Tutors are prepared to help writers of all levels and abilities at any stage of the writing process. While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices. By providing a practice audience for students' ideas and writing, our tutors highlight the ways in which they read and interpret students' texts, offering guidance and support throughout the various stages of the writing process. In addition, students may work independently in the UWC by checking out a laptop that runs the Microsoft Office suite and connects to WIFI, or by consulting our resources on writing, including all of the relevant style guides. Whether you need help brainstorming ideas, organizing an essay, proofreading, understanding proper citation practices, or just want a quiet place to work, the UWC is here to help!

Students may arrange a one-to-one session with a trained and experienced writing tutor by making an appointment via [WCOnline](#) [<https://tamuct.mywconline.com/>]. In addition, you can email Dr. Bruce Bowles Jr. at [bruce.bowles@tamuct.edu](mailto:bruce.bowles@tamuct.edu) if you have any questions about the UWC, need any assistance with scheduling, or would like to schedule a recurring appointment with your favorite tutor.

### **OTHER POLICY STATEMENTS**

#### **A Note about Sexual Violence at A&M-Central Texas**

Sexual violence is a serious safety, social justice, and public health issue. The university offers support for anyone struggling with these issues. University faculty are mandated reporters, so if someone discloses that they were sexually assaulted (or a victim of Domestic/Dating Violence or Stalking) while a student at TAMUCT, faculty members are required to inform the Title IX Office. If you want to discuss any of these issues confidentially, you can do so through Student Wellness and Counseling (254-501-5955) located on the second floor of Warrior Hall (207L).

Sexual violence can occur on our campus because predators often feel emboldened, and victims often feel silenced or shamed. It is incumbent on ALL of us to find ways to actively create environments that tell predators we don't agree with their behaviors and tell survivors we will support them. Your actions matter. Don't be a bystander; be an agent of change. For additional information on campus policy and resources visit the [Title IX webpage](#) [<https://www.tamuct.edu/compliance/titleix.html>].

#### **Behavioral Intervention**

Texas A&M University-Central Texas cares about the safety, health, and well-being of its students, faculty, staff, and community. If you are aware of individuals for whom you have a concern, please make a referral to the Behavioral Intervention Team. Referring your concern shows you care. You can complete the [referral](#) online

[<https://cm.maxient.com/reporting.php?TAMUCentralTexas>].

Anonymous referrals are accepted. Please see the [Behavioral Intervention Team](#) website for more information [<https://www.tamuct.edu/bit>]. If a person's behavior poses an imminent threat to you or another, contact 911 or A&M-Central Texas University Police at 254-501-5805.

#### **Copyright Notice**

Students should assume that all course material is copyrighted by the respective author(s). Reproduction of course material is prohibited without consent by the author and/or course instructor. Violation of copyright is against the law and Texas A&M University-Central Texas' Code of Academic Honesty. All alleged violations will be reported to the Office of Student Conduct.

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