



CSCI 310.61E, Cybersecurity

COURSE SYLLABUS: Fall 2026

INSTRUCTOR INFORMATION

Instructor:	Dr. Afsana Rahman Mou
Office Location:	N/A
Office Hours:	Monday, Wednesday 10:00 AM – 11:30 PM or by appointment
University Email Address:	afsana.mou@etamu.edu
Preferred Form of Communication:	EMAIL subject must contain CSCI-310-61E
Communication Response Time:	Email response within 1~2 business days

Course Description

This course provides the foundation for understanding the key issues associated with ethically protecting information processing systems. The course covers key terminology, system concepts, and current cyber threats to organizations and individuals. The course provides a high-level overview of cybersecurity challenges and counter measures, and introduces the Confidentiality, Integrity, and Availability (CIA) framework for designing and analyzing secure systems. Other topics include essential security concepts, software security, network attacks and countermeasures, and practical cryptography.

Prerequisites: COSC 1437.

Student Learning Outcomes

Upon completing this course students should be able to:

1. Understand the importance of information security / cyber security and associated risks
2. Learn the key concepts of information security

The syllabus/schedule are subject to change.

3. Learn about some of the different domains and capabilities of information security including identity and access management, network security, application security, data protection, etc.
4. Understand basic cryptography algorithms and mechanisms
5. Learn and understand key concepts in threat & vulnerability management

COURSE INFORMATION

Location/time: Monday/wednesday 12:30 pm-1:45 pm at SS #143

Textbook:

- Paar, Christof, Jan Pelzl, and Tim Güneysu. *Understanding Cryptography: From Established Symmetric and Asymmetric Ciphers to Post-Quantum Algorithms*. 2nd ed., Springer Berlin Heidelberg, 2024.
- Van Oorschot, Paul C. *Computer Security and the Internet: Tools and Jewels from Malware to Bitcoin*. 2nd ed., Springer, 2021.
- Bishop, M. (2019). *Computer security: Art and science* (2nd ed.). Addison-Wesley Professional.
- Principles of Information Security by Michael Whitman, Herbert Mattord, 7th Edition, ISBN-10 : 035750643X, ISBN-13 : 978-0357506431

Topics to be covered:

Week 1	Overview and introduction to the course
Week 2	Fundamentals of Computer Security
Week 3	Linux Command Line Interface
Week 4	Operating System Security
Week 5	Authentication and Access Control
Week 6	Cryptography
Week 7	Network Security
Week 8	Software Security
Week 9	Web and Browser Security
Week 10	Malware and Endpoint Security
Week 11	Network Attacks and Intrusion Detection
Week 12	Incident Response and Digital Forensics
Week 13	Cyber Ethics
Week 14	Emerging Topics in Cybersecurity
Week 15	Project Presentation
Week 16	Final Exam

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COURSE REQUIREMENTS

Minimal Technical Skills Needed

Students should be able to study independently and have strong implementation skills. Students should be also familiar with basic Linux shell commands and system skills. Students are expected to have strong background in both mathematics and computer systems.

Instructional Methods

Face-to-face lectures and lab will be given every week in the classroom. All material related content will be posted on D2L. Assignments will be posted online on D2L, and student should work on them and submit their solution on time. Students are also encouraged to utilize discussion boards for Q&A.

Student Responsibilities or Tips for Success in the Course

Build a weekly habit of completing the lessons from the course materials on time every week. Please follow the rules for naming and posting assignments.

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GRADING

Final grades in this course will be based on the following scale:

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

Assessments

Weights of the assessments in the calculation of the final letter grade:

Participation	15%
Assignment	15%
Two Midterm Exams	30%
Final Exam	20%
Project Presentation	20%
TOTAL	100%

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Use of AI generative tools:

East Texas A&M University acknowledges that there are legitimate uses of Artificial Intelligence, chatbots, or other software that has the capacity to generate code, and textual answers. Any unreferenced and undocumented use of such software is not allowed and constitutes an instance of academic dishonesty (plagiarism).

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by East Texas A&M University have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

YouSeeU Virtual Classroom Requirements:

<https://support.youseeu.com/hc/en-us/articles/115007031107-BasicSystemRequirements>

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

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COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

Interaction with Instructor Statement

The instructor will make an effort to answer questions in a timely manner.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

You should do your own work on exams and for programming assignments. Copying another student's work is not acceptable. Any indication of cheating or plagiarism on an exam/assignment will result in an automatic 0 (zero) for the exam/assignment for all students involved. Yet, based on cheating and plagiarism activity in any section of class, instructor holds the right to give F grade to the identified student(s). Regarding codes in assignments, you may be required to explain the code you submitted. In case of discursive explanation, the instructor holds the right to lower your grade. No makeup exams or assignments unless documents explaining emergency are provided.

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](#).

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:

<https://www.britannica.com/topic/netiquette>

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ETAMU Attendance

For more information about the attendance policy please visit the [Attendance](#) webpage.

Academic Integrity

Students at East Texas A&M University are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

- Undergraduate Academic Dishonesty:
<https://inside.tamuc.edu/aboutus/policiesproceduresstandardsstatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03.pdf>
- Graduate Student Academic Dishonesty:
<https://inside.tamuc.edu/aboutus/policiesproceduresstandardsstatements/rulesprocedures/13students/graduate/13.99.99.R0.10.pdf>

Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

East Texas A&M University

Gee Library- Room 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: [Student Disability Services](#)

Nondiscrimination Notice

East Texas A&M University will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

The syllabus/schedule are subject to change.

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in East Texas A&M University buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and East Texas A&M University Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url: <http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all East Texas A&M University campuses. Report violations to the University Police Department at 903886-5868 or 9-1-1.

East Texas A&M Supports Students' Mental Health

The Counseling Center at East Texas A&M, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit <https://www.etamu.edu/counseling-center/>

Mental Health and Well-Being

The university aims to provide students with essential knowledge and tools to understand and support mental health. As part of our commitment to your well-being, we offer access to Telus Health, a service available 24/7/365 via chat, phone, or webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it.



<http://telusproduction.com/app/5108.html>

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AI use policy [Draft 2, May 25, 2023]

East Texas A&M University acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism). Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty

13.99.99.R0.10 Graduate Student Academic Dishonesty