



CSCI 397.61E – Applied Cyber Project

COURSE SYLLABUS: Spring 2022

INSTRUCTOR INFORMATION

Instructor	Prof. Eman Hammad
Office Location	RELLIS ACB2-208
Office Hours	Wed. 9-11 am, or by appointment
Email	eman.hammad at tamuc dot edu (1-2 business days)

COURSE INFORMATION

Meetings (time/location):

- Meetings: Wednesdays 10-11 am, ACB2-314.
- Lab: TBD

Course Description

This course is a special topics course that covers the basic concepts of practical IoT security testing and evaluation in partnership with an industrial vendor as a client. This course is a project-based course where the students will work in a team to perform a systematic set of activities technical and non-technical simulating real-life security consulting projects from legal agreements to reporting.

Student Learning Outcomes

Upon completing this course, students should be able to:

- Understand workflows for legal and regulatory compliance requirements and procedures as applicable to the course project including IRB, NDA, Consent, etc.
- Perform project management and planning activities according to the agile methodology.
- Plan, prepare and conduct effective client communication and project updates.
- Perform basic and advanced IoT hardware and software security testing.
- Design test cases and perform relevant data analysis.
- Prepare and share security assessment technical reports with executive summaries and recommendations.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

PREREQUISITES: CSCI 310, or equivalent cybersecurity background/training.

Instructional Methods

The course will consist mainly of class group meetings, discussions and lab hands-on sessions. Important material

The syllabus/schedule are subject to change.

will be covered during class meetings. This course is project-paced so students are expected to contribute to each class in the form of discussion, questions and team activities (nontechnical and technical). This syllabus contains an overview of what will be covered in class; for specific information, students are referred to the D2L class portal. The course portal will contain need to know project information and supporting material.

Student Responsibilities or Tips for Success in the Course

It is expected that you are the owner of your success in this course, including ensuring you understand the expectations, timelines, policies and learning objectives.

Baseline expectations:

1. Attend weekly meetings and check LMS frequently.
2. Start your work tasks/assignments early.
3. Communicate with the other students in the project regularly and frequently.
4. Communicate with the instructor when you are confused, or having course-related difficulties.

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**. Class attendance, doing all your project and homework will help the borderline cases. Check your grades often. Any score may be disputed up to seven (7) days after the score is posted. After 7 days, the score remains as-is.

Assessments

Assessment Type	Weight of Final Grade	Learning Objectives
Project artifacts and execution (planning, use-cases, testing and analysis)	60%	Practical and critical understanding and problem solving of security testing.
IoT security testing and assessment framework documentation	20%	
Final report & stakeholder presentation	20%	

COURSE OUTLINE / CALENDAR

Week	Course Subject
Week 1	Project Requirements and Governance
Week 2, 3	Project Planning and Stakeholder Alignment Required equipment procurement
Week 4	Project Specific Tools Training
Week 5	Test-Cases Design (Hardware, Software)
Week 6-10	Data Collection (week 9 is Spring Break)
Week 11-12	Data Analysis and Initial Findings Report
Week 13	Draft Report and Stakeholder Presentation (April 15)
Week 14-16	IoT security testing and assessment framework documentation

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*The schedule is **tentative** and may be adjusted to fit the actual class progress.

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce 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-Basic-System-Requirements>

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 is expected to have a backup method to deal with these inevitable problems. In case of extreme technology related circumstances, please communicate directly with the instructor to best manage your success in this course.

COMMUNICATION AND SUPPORT

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

To communicate with me about this course, kindly use the email address included in this syllabus. During the week, you can generally expect a response to your emails within 1-2 business days. *If you do not receive my response in 2 business days, please send a second email to me.*

To ensure I get your email and respond within indicated timelines above, please make sure that:

- Your email message is sent from your Texas A&M student account.
- Your email message includes a descriptive subject with the indicated prefix:
CSCI 458 – Spring 2022 -- <descriptive subject>

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

Attendance is required. Students are expected to do the readings, attend class, and participate in class discussions. Each student is responsible for managing their own time and work-load. Emergency / extreme circumstances

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causing a student to miss deadlines/exams will need to be supported by official and university approved documentation.

Positive Learning Environment

Your commitment as a student to learning is evidenced by your enrollment at Texas A & M University-Commerce. "All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (See Student's Guide Handbook, Policies and Procedure, Conduct).

Sharing Your Work

All work produced by students may be shared by the instructor with the class for purposes of example and training. Such work will be as anonymous as possible. Finally, the instructor may share your work anonymously with future classes or in her own writing and research.

Submitting Assignments:

Unless special instructions are provided, assignments are NOT to be posted on any discussion board. Your completed work MUST be placed in the appropriate Dropbox in D2L Online. DO NOT EMAIL ME ANY ASSIGNMENTS AS THEY WILL BE DELETED. Please follow the rules for naming and posting assignments.

Late Work Policy

All assignments are due at the date and time specified.

Makeup Policy

There will be NO makeup exams or quizzes. If you shall miss a quiz/exam because of acceptable extreme circumstances (hospitalization, serious injury/sickness, death in the family etc.), you may be offered to choose to receive a grade based on your in-class ranking in the next quiz/exam.

Academic Integrity

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University. **For this class, all assignments / quizzes / exams / project are to be completed by the individual student unless otherwise specified.**

Any student cheating will receive a zero on the work they are doing, and subsequent cheating will result in a failing grade and potential academic sanctions.

Students at Texas A&M University-Commerce 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 13.99.99.R0.03](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

[Graduate Student Academic Dishonesty 13.99.99.R0.10](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

Basic Tenets of Common Decency

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“All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment.” (Student’s Guide Handbook, Policies and Procedures, Conduct.) This means that rude and/or disruptive behavior will not be tolerated.

Disclaimer

This syllabus is meant to provide general guidance of what to expect from this course. The instructor reserves the right to make changes as appropriate based on the progress of the class. All changes made to this syllabus during the semester will be announced. This document has been posted electronically. If you print a copy of it, please be sure to consult the last modified date of the online version to verify that your printed copy is current.

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](#).

<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

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>

TAMUC Attendance

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedure I3.99.99.R0.01](#).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/I3students/academic/I3.99.99.R0.01.p df>

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

Texas A&M University-Commerce

Gee Library- Room 162

Phone (903) 886-5150 or (903) 886-5835, Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

Nondiscrimination Notice

Texas A&M University-Commerce 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.

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