The Counseling Center at A&M-Commerce, 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 www.tamuc.edu/counsel



CSCI 345.61E Data Security and Privacy

COURSE SYLLABUS: Spring 2022

INSTRUCTOR INFORMATION

Instructor:

Dr. Srujan Kotikela, Assistant Professor

Office Location: Office Hours: Office Phone: Office Fax: ACB2 #210 Tuesday & Thursday 9AM – 12PM, Other times by appointment 979-317-3429 N/A

University Email Address: Preferred Form of Communication: Communication Response Time: srujan **dot** kotikela **at** tamuc **dot** edu **EMAIL subject must contain** *Spring 2022 - (CSCI-345-61E)* Email response within 1~2 business days

COURSE INFORMATION

Location/time: Tuesday/Thursday 12:00 PM – 1:15 PM at ACB2 #314

Text book: No text book required. Use any text book of your choice for reference or look up information on internet.

Course Description

This course will provide measures and tools used to guard both the data and analytics processes from attacks, theft, or other malicious activities that could harm or negatively affect them from both online and offline aspects. It includes protection of data in rest, data in transit, data in processing, big data analytical models, and machine learning techniques.

Prerequisites: CSCI 310 and CSCI 340. Corequisites: CSCI 360.

The syllabus/schedule are subject to change.

Student Learning Outcomes

- 1. To understand various types and properties of digital data
- 2. To learn and implement data security solutions
- 3. To learn and implement data privacy controls
- 4. To learn to protect data models and analytics
- 5. To understand legal and compliance measures for data protection

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 and University's Pandemic Response

Face-to-face lectures and lab will be given every week in the class room. Students are supposed to download assignments online and submit them on time. Students are also encouraged to utilize discussion boards for Q&A.

A&M-Commerce requires the use of face-coverings in all instructional and research classrooms/laboratories. Exceptions may be made by faculty where warranted. Faculty have management over their classrooms. Students not using face-coverings can be required to leave class. Repetitive refusal to comply can be reported to the Office of Students' Rights and Responsibilities as a violation of the student Code of Conduct. Students should not attend class when ill or after exposure to anyone with a communicable illness. Communicate such instances directly with your instructor. Faculty will work to support the student getting access to missed content or completing missed assignments.

Student Responsibilities or Tips for Success in the Course

Assignments will be announced on myLeoOnline. It is students' responsibility to keep up with the schedule. No makeup exams or assignments.

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

The syllabus/schedule are subject to change.

Assessments

Basis for Evaluation:

Participation	_	10%
Assignments	_	30%
Quizzes	_	30%
Term paper	_	30%

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

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_suppo rt.htm

YouSeeU Virtual Classroom Requirements: https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-SystemRequirements

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 <u>helpdesk@tamuc.edu</u>.

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.

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 <u>Student Guidebook</u>. <u>http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.as</u> <u>px</u>

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

The syllabus/schedule are subject to change.

TAMUC Attendance

For more information about the attendance policy please visit the <u>Attendance</u> webpage and <u>Procedure 13.99.99.R0.01</u>.

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

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

Academic Integrity

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

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: <u>studentdisabilityservices@tamuc.edu</u> Website: <u>Office of Student Disability Resources and Services</u> <u>http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServ</u> <u>ices/</u>

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.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce 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 A&M-Commerce 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 <u>Carrying Concealed Handguns On Campus</u> 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 A&MCommerce campuses. Report violations to the University Police Department at 903886-5868 or 9-1-1.

COURSE OUTLINE / CALENDAR

Part I

- Introduction to digital data
- Types and states of digital data

Part II

- Security vulnerabilities and breaches
- Detection, mitigation, and resilience
- Review and quiz

Part III

- Privacy and anonymity concerns
- Technical and ethical approaches
- Review and quiz

Part IV

- Data Analytics and Machine learning
- Protecting the data models and analytics
- Review and quiz

Part V

- Laws and policies for data management
- Tools and processes for compliance
- Review and quiz