



CSCI 352 01E Digital Forensics

COURSE SYLLABUS: SPRING 2025

INSTRUCTOR INFORMATION

Instructor: Kathiravan Natarajan
Office Location: JOUR 209
Office Hours: Monday, 11 AM to 2 PM
Office Phone: N/A
Office Fax: N/A
University Email Address: Kathiravan.Natarajan@tamuc.edu
Preferred Form of Communication: Email with the subject CSCI 352 01 E
Communication Response Time: 1 day to 3 days

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Required

Guide to Computer Forensics and Investigations
Author: Bill Nelson, Christopher Steuart, Carol Cram, Amelia Phillips, Lisa Friedrichsen
Edition: 7th
Published Date: 2021
ISBN: 978-0-357-67288-4
Publisher: CENGAGE

Course contents will be shared on the course web page. A textbook is beneficial but not mandatory.

Software Required

It will be communicated on the course page.

Optional Texts or Materials

Course materials should suffice in achieving the educational goals of this course.

The syllabus/schedule are subject to change.

Course Description

This course offers a comprehensive exploration of digital forensics, equipping learners with the knowledge and skills required to excel as digital forensics examiners. Students will gain a deep understanding of the roles of forensics professionals, the types of digital evidence they handle, and the career opportunities in this growing field.

Key topics include the impact of modern device features on evidence collection, hands-on experience with diverse investigative tools, and best practices for setting up and managing a certified forensics lab. Participants will learn to conduct online data gathering, investigate contemporary crimes, and identify compromise indicators critical for incident response.

Specialized modules cover investigating financial fraud, analyzing digital photographic evidence (including metadata and social media imagery), and extracting data from wearable tech, IoT devices, and mobile applications. The course emphasizes advanced methods for obtaining full file system images from iPhones and other devices while adhering to strict rules of evidence admissibility.

By the end of the course, students will be prepared to investigate complex cases involving cutting-edge technologies, manage evidence securely, and apply forensic techniques to support law enforcement, corporate investigations, and cybersecurity teams.

Learning Outcomes

1. Understand digital forensics examiners' roles, the evidence they handle, and available career opportunities.
2. Explore the impact of modern device features on evidence collection and utilize diverse tools for investigation.
3. Set up a certified forensics lab, implementing best practices for evidence management and processing.
4. Conduct online data gathering to investigate complex contemporary crimes.
5. Identify compromise indicators and excel in incident response protocols.
6. Investigate financial fraud using digital evidence and employ digital photographic evidence, including metadata and social media images.
7. Explore wearable tech and IoT devices, learn new methods to extract full file system images from various iPhones, and capture data from popular apps while adhering to strict evidence admissibility rules.

The syllabus/schedule are subject to change.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

No prerequisites needed

Instructional Methods

In-person lectures in the assigned classroom. The instructor will share the course materials on the course web page as well.

Student Responsibilities or Tips for Success in the Course

- Keep up-to-date with the weekly quizzes
- Practice command line commands discussed in the classroom
- Complete the homework on time and
- Reach out to instruction for any questions and clarifications

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

Total points corresponding to the final letter grades

A = 451- 500 Points

B = 401- 450 Points

C = 351- 400 Points

D = 301- 350 Points

F = 300 & > Points

The syllabus/schedule are subject to change.

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

Example:

Weekly Quizzes	15%
Case study	20%
Assignment	15%
Two Midterm Exams	30%
Final Exam	20%
TOTAL	100%

Assessments

Assessments will be in-person, including the two midterm exams, the final exam, and the project.

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

Zoom Video Conferencing Tool

https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom_Account.aspx?source=universalmenu

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

The syllabus/schedule are subject to change.

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

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

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](#).

<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>

The syllabus/schedule are subject to change.

TAMUC Attendance

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedures 13.99.99.R0.01](#)

<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](#)

[Undergraduate Student Academic Dishonesty Form](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf>

[Graduate Student Academic Dishonesty Form](#)

<http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishonestyFormold.pdf>

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

Velma K. Waters Library Rm 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/>

The syllabus/schedule are subject to change.

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 [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 A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

A&M-Commerce Supports Students' Mental Health

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

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

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for

The syllabus/schedule are subject to change.

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

Department or Accrediting Agency Required Content

COURSE OUTLINE / CALENDAR

Week	CONTENT	Quizzes and Assignments
W1 (01/13)	Understanding the Digital Forensics Profession and Investigations	
W2 (01/20)	Report Writing and Testimony for Digital Investigations	Quiz 1 and Assignment 1
W3 (01/27)	The Investigator's Laboratory and Digital Forensics Tool	
W4 (02/03)	Data Acquisition	Quiz 2 and Assignment 2
W5 (02/10)	Processing Crime and Incident Scenes	
W6 (02/17)	Working with Microsoft File Systems and the Windows Registry	Quiz 3 and Assignment 3
W7 (02/24)	Midterm Test 1	
W8 (03/03)	Linux and Macintosh File Systems	Quiz 4 and Assignment 4
W9 (03/10)	Spring Break	
W10 (03/17)	Media Files and Digital Forensics	Quiz 5 and Assignment 5
W11 (03/24)	Virtual Machine Forensics and Live Acquisitions Forensics	
W12 (03/31)	Network Forensics	Quiz 6 and Assignment 6
W13 (04/07)	Midterm Test 2, Cloud Forensics and the Internet of Anything	
W14 (04/14)	Mobile Device Forensics, Email and Social Media Investigations, e-Discovery	Quiz 7 and Assignment 7
W15 (04/21)	Final Preparation Week	
W16 (05/05)	Final Exam	

The syllabus/schedule are subject to change.