

Sul Ross State University
CJ 3369 Digital Forensics Syllabus
Spring 2024

GENERAL COURSE INFORMATION

Instructor: Oguzhan Basibuyuk, Ph.D

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Class hours: Monday Wednesday 1:00 p.m. 2:15 p.m.

Classroom: MAB 204

Office hours: Monday, Wednesday, and Thursday between 10:00 AM and 12:00 PM

RECOMMENDED TEXT

Guide to Compute Forensics and Investigations (any version from 5 to newest) Author: Bill Nelson, Amelia Phillips, Chris Steuart. Cengage Publication ISBN 978-1337568944

<https://www.amazon.com/Guide-Computer-Forensics-Investigations-Standalone/dp/1337568945>

<https://www.cengage.com/c/guide-to-computer-forensics-and-investigations-6e-nelson-phillips-steuart/9781337568944/>

Additional readings (e.g., articles, reports) will be posted on Blackboard.

SRSU LIBRARY SERVICES

The Sul Ross Library offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, www.library.sulross.edu . Off-campus access requires your LoboID and password. Check out materials using your photo ID. Librarians are a tremendous resource for your coursework and can be reached in person, by email (srsulibrary@sulross.edu), or phone (432-837-8123).

Once you logged in to your Sul Ross Account on Blackboard you should be automatically connected to the library webpage as well. Thus, you can browse the online databases of the University and reach the articles on the reading list.

Syllabus is subject to updates and changes always look to the course announcements and reminders for updates. The faculty member reserves the right to amend this syllabus as needed.

COURSE DESCRIPTION

This course is intended to introduce you to the digital forensics. More specifically, In this course, students will learn the fundamental process of analyzing data collected from electronic devices (including computers, media, and other digital evidence). Students will become familiar with proper techniques and tools utilized for securing, handling and preserving digital and multimedia evidence at physical crime scenes. Students will utilize examination and chain of custody forms, as well as prepare crime scene and digital acquisition reports related to administrative, civil and criminal investigations.

COURSE LEARNING OBJECTIVES

This course focuses on the use of the most popular forensics tools and provides specific guidance on dealing with civil and criminal matters relating to the law and technology. Includes discussions on how to manage a digital forensics operation in today's business environment. Upon successful completion of this course, you will be able to:

LO-1 Understanding the Digital Forensics Profession and Investigations

LO-2 The Investigator's Office and Laboratory

LO-3 Data Acquisition

LO-4 Processing Crime and Incident Scenes

LO-5 Working with Windows and CLI Systems

- LO-6 Current Digital Forensics Tools
- LO-7 Linux and Macintosh File Systems
- LO-8 Recovering Graphics Files
- LO-9 Digital Forensics Analysis and Validation
- LO-10 Virtual Machine Forensics, Live Acquisitions, and Network Forensics
- LO-11 Email and Social Media
- LO-12 Mobile Device Forensics
- LO-13 Cloud Forensics
- LO-14 Report Writing for High Tech Investigations
- LO-15 Expert Testimony in High Tech Investigations
- LO-16 Ethics for the Investigator and Expert Witness

MARKETABLE SKILLS:

This course is designed also to help the students for building various marketable skills to use in their in careers Criminal Justice related professions. Specifically, in this course, the following marketable skills, which are some of the most important skills for such careers, will be emphasized during this course:

- MS 1- Verbal and Written Communication Skills
- MS 2- Critical Thinking and Observation
- MS 3- Multicultural Understanding.
- MS 4- Accessing Resources with Crime Data and the most current updates of legal codes and procedures.
- MS 5- Teamwork and Working Collaboratively
- MS 6- Analyzing the Factors Contributing to Crime

GENERAL CLASSROOM POLICIES:

Students are encouraged to attend the class, ask questions and express opinions, however, talking among students and disruptive behavior will not be tolerated. You may bring beverages to class with you, but not food. Reading outside materials such as newspapers or other course work is not permitted during class time. Students should be prepared to engage in discussion over the assigned readings, and for possible pop quizzes. Electronic devices are never allowed to use in class in a way to distract the instructor and other students. Keep your mobile phone in silent mode, otherwise switch it off. Violation of this crucial principal will be penalized. There will be one general rule in class which applies to all situations. This is also called “golden rule”. **TREAT OTHERS AS YOU WOULD LIKE TO BE TREATED.**

COMPUTER LAB USAGE POLICY

1. Computer labs are to be used only by students currently enrolled in the networking curriculum.
2. Use is limited to software licensed to Sul Ross State University and currently installed each computer.
- 3- The lab environments, including those we have in the classroom and online Cloud Labs VMs, are designed for course purposes only. These environments are not meant to be used for other purposes. Please use them to complete the lab exercises. Adhere to ethical principles

and do not engage in any illegal or unethical activity or practice. Everything you will learn in this course should be used in an ethical and responsible manner. Unauthorized attempts to access other



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devices/networks are illegal. If you wish to practice what you've learned, you should use the simulation environments designed for that purpose.

4. No food, drink, or smoking is allowed in computer labs.

5. No excessive or loud behavior is permitted.

6. Students utilizing Internet resources that are not directly related to the class topic for that day will not be tolerated

GRADING AND EVALUATION CRITERIA:

There will be 2 major exams throughout the semester, with questions drawn from the readings and the supplemental materials posted on the blackboard. These 2 exams will be worth 20% each. There will be no makeup exams. Every week there will be a quiz for the related chapters 20% of the total grade will be based on quizzes. Remaining 40% will be based on in-Class presentation, report, and lab assignments.

Depending on the number of students enrolled the in-class presentation will be an individual presentation or a group presentation on course related selected topics. Finally, students are asked to finish lab assignments about various end-of-chapter exercises.

Midterm exam	20 %
Final exam	20 %
Quizzes	20 %
In-Class Presentation	20 %
Lab Assignments	20 %
Total	100 %

IN-CLASS PRESENTATION and REPORT

The students are required to prepare and present an in-class presentation. They will prepare power point presentation and submit it to Blackboard before doing their presentation in class. Depending on the number of enrolment, the presentation will be an individual presentation or a group presentation.

Presentations should be on course related selected topics. Group presentations will be divided subtopics of the selected topic, and each group member will present his/her subtopic. The presentation will rely on lessons learned throughout the course and put students in the investigator's shoes. Students need to present in class with PowerPoint slides and submit a formal project report at the end of the semester.

ASSIGNMENTS AND LABS

Assignments and labs will be based on chapter questions and other class-related materials. All assignments and labs should be submitted to the blackboard. Other submission formats {e.g., via email or hand-written papers) will not be accepted.

ONLINE CERTIFICATE

Students are required to complete the certificate "AWR139 Digital Forensics Basics" offered by the TEEX. The URL for registering the online certificate: <https://teex.org/class/AWR139/> . After you receive (by email) your certificate, upload an e-copy (pdf) of the certificate and the printed email letter (pdf) to the blackboard by the end of the semester.

CHEATING AND PLAGIARISM:

Students are expected to do their own work on all tests and papers. Cheating on tests and plagiarism on assignments will result in a grade of "F" on that part of the course, a possible grade of "F" for the entire course, and possible recommendation for suspension from the university.

Plagiarism consists of presenting the work of another as one's own (i.e., without proper acknowledgment of the source) and submitting examinations or other work in whole or in part as one's own when such work has been prepared by another person or copied from another person (see the Student Handbook).

IN-CLASS and ON-LINE ATTENDANCE:

The Department of Criminal Justice feels very strongly that class attendance is a direct predictor of student classroom success. Therefore, the faculty of the CJ department as a group will enforce the following student attendance policy. This policy does not supersede the SRSU policy on student attendance; it simply reinforces those stated goals. Criminal justice faculty will take class attendance. In accordance with current SRSU policy, when a student misses a total of 9 hours of class, the presumption is that the student will be dropped from that class with an "F".

Students who violate the SRSU attendance policy may also find that they are ineligible for any extra credit or any discretionary grading curve applied to any or all exams for that course/semester. It should also be noted that it is the student's responsibility to inform the instructor prior to any University event that would cause an absence. Failure of the student to inform the instructor will result in that absence being recorded as unexcused. Attendance is important! Attendance demonstrates maturity, responsibility and a serious attitude toward education. Additionally, instructors seldom teach only from the book. Missing a class (even an excused absence) will put you at a disadvantage for all of the materials covered when you were absent such as films, presentations, and guest lectures which cannot be made up. Attendance will be taken daily and absences cannot be made up. Students should be in class on time and should be prepared to stay for the entire class period. Students who are late will not be counted as attending if attendance has already been taken.

SERVICE STATEMENT:

I aim to create a learning environment for my students that supports a diversity of thoughts, perspectives and experiences, and honors your identities (including race, gender, class, sexuality, religion, ability, socioeconomic class, age, nationality, etc.). I also understand that the crisis of COVID, economic disparity, and health concerns, or even unexpected life events could impact the conditions necessary for you to succeed. My commitment is to be there for you and help you meet the learning objectives of this course. I do this to demonstrate my commitment to you and to the mission of Sul Ross State University to create an inclusive environment and care for the whole student as part of the Sul Ross Familia. If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to come and talk with me. I want to be a resource for you.

STUDENT SUPPORT SERVICES AND BLACKBOARD HELP DESK

Sul Ross State University has established a variety of programs to help students meet the challenges of college life. Support to students includes advising, counseling, mentoring, tutoring, supplemental instruction, and writing assistance. For a complete list of academic support services, visit the Student Support Services <https://www.sulross.edu/section/311/student-support-services>. For more information, students are encouraged to contact SSS at (432) 837-9118 or visit Ferguson Hall Room 105. For Blackboard help visit <https://www.sulross.edu/bb> or call 432-837-8523 (M-F 09:00 am-06:00 pm). You can get The Distance Education Handbook at <https://tvpb.sulross.edu/start/index.html>

STUDENTS WITH SPECIAL NEEDS:

ADA (Americans with Disabilities Act) Sul Ross State University (SRSU) is committed to SRSU Disability Services. Sul Ross State University (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class. Alpine students seeking accessibility/accommodations services must contact Mary Schwartze Grisham, M.Ed., LPC, SRSU's Accessibility Services Coordinator at 432-837-8203 (please leave a message and we'll get back to you as soon as we can during working hours), or email mschwartze@sulross.edu Our office is located on the first floor of Ferguson Hall (Suite 112), and our mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas, 79832.

ACADEMIC CALENDAR

W	DATES	TOPICS	READINGS
1	January 17-21	Introduction of the course and syllabus	
2	January 22-28	Understanding the Digital Forensics Profession and Investigations	Chapter 1 Quiz 1
3	Jan.29-Feb.4	The Investigator's Office and Laboratory and Data Acquisition	Chapter 2-3 Quiz 2
4	February 5-11	Th Processing Crime and Incident Scenes e Law and Criminal Investigations	Chapter 4 Quiz 3
5	February 12-18	Current Digital Forensics Tools	Chapter 5 Quiz 4
6	February 19-25	Working with Windows and CLI Systems	Chapter 6 Quiz 5
7	Feb. 26-Mar.3	Linux and Macintosh File Systems	Chapter 7 Quiz 6
8	March 4-10	Recovering Graphics Files	Chapters 8 Quiz 7
9	March 11-17	SPRING BREAK	
10	March 18-24	Digital Forensics Analysis and Validation MIDTERM EXAM	Chapters 9 Quiz 8
11	March 25-31	Virtual Machine Forensics, Live Acquisitions, and Network Forensics	Chapter 10 Quiz 9
12	April 1-7	Email and Social Media Mobil Device Forensics	Chapter 11-12 Quiz 10
13	April 8-14	Cloud Forensics	Chapter 13 Quiz 11
14	April 15-21	Report Writing for High Tech Investigations	Chapter 14 Quiz 12
15	April 22-May 1	Expert Testimony in High Tech Investigations Ethics for the Investigator and Expert Witness	Chapters 15-16 Quiz 13
16	May 3,6-8	FINAL EXAM	

END OF COURSE EVALUATIONS:

Student evaluations of faculty are administered online at the end of each term/session for all courses with five or more students. Students will receive an email containing a link to a survey for each course in which they are enrolled. All responses are anonymous.