

FRSC 365: Mobile Device Forensics

Fall 2025

Monday 6:00 PM -9:00 PM

Faculty Memorial Hall Room 314

Course Syllabus

COURSE INFORMATION

Course Description: *Digital forensics refers to the process of extracting electronically stored information from various devices while adhering to forensically sound policies and procedures. Mobile forensics, a subset of this field, concentrates on extracting potential evidence from mobile devices such as cellphones, tablets, and body cameras, enabling forensic technicians to present their findings as expert witnesses in legal proceedings. The objectives of this course are to: define the role of an expert witness, give students a clear understanding of the responsibilities of a forensic technician, train them to properly take custody of potential evidence, maintain and document the chain of custody, and develop the skills to forensically image, analyze, and report their findings.*

Number of Credits: 3 **Prerequisites:** none

ACADEMIC INTEGRITY

NJIT Academic Integrity Code: *Students are asked to practice extra care and attention in regard to academic honesty, with the understanding that all cases of plagiarism, cheating, multiple submission, and unauthorized collaboration are subject to penalty. Students must properly cite and attribute all sources used for papers and assignments. Posting an exam, assignment, or answers to them on an online forum (before, during, or after the due date), in addition to consulting posted materials, constitutes a violation of the University's Honesty policy. Likewise, unauthorized use of live assistance websites, including seeking "expert" help for specific questions during an exam can be construed. **If you have any questions regarding the Academic Integrity Code, please reach out to the Dean of Students Office at: dos@njit.edu***

Course-Section and Instructor

Course-Section	Instructor
FRSC 365	Adj. Prof. John Lucich
Office Hours:	Mondays by appointment only
Phone Number:	973-632-3652
Email Address:	jl2565@njit.edu

COURSE REQUIREMENTS

Required Textbook: NONE. However, readings and videos will be assigned through online resources.

Computer: You will also need a laptop with a reliable internet connection, webcam, and microphone. The laptop should be less than two years old, with at least 16 GB of RAM and a 1-terabyte hard drive.

University-wide Withdrawal Date: The last day to withdraw with a **W** is Monday, Nov 10, 2025. It will be strictly enforced.

LEARNING OBJECTIVES

Upon completion of this course, students will:

- Understand the role and responsibilities of an expert witness
- Recognize the importance of maintaining the chain of custody to ensure evidence integrity
- Differentiate between computer forensics and mobile forensics
- Identify the various mobile forensic tools and know how to validate their results
- Learn how to take custody of a device, properly document it, and maintain the chain of custody
- Learn how to create a forensic image of a mobile device and the different data extraction methods
- Learn how to analyze mobile devices using forensic software and interpret the recovered data
- Develop the ability to write a comprehensive report detailing procedures, methods, and findings
- Understand key legal terms—such as Net Opinion, Inculpatory, and Exculpatory—and their significance

POLICIES

All CES students must familiarize themselves with, and adhere to, all official university-wide student policies. CES takes these policies very seriously and enforces them strictly.

Grading Policy: The final grade in this course will be determined as follows:

Attendance/Class Participation	25%
Forensic Analysis Project	15%
Assignments/Quizzes	20%
Midterm	20%
Final Exam	20%

Your final letter grade in this course will be based on the following:

A	90-100	C	70-76
B+	87-89	D	60-69
B	80-86	F	<60
C+	77-79		

Attendance Policy: Attendance is mandatory and will be recorded. Each class provides a unique learning experience that cannot be replaced by simply reviewing notes. After one unexcused absence, every additional unexcused absence will reduce your class participation score by 1%. All excused absences must be processed through the Dean of Students. You are expected to complete the assigned chapters and/or readings before each lecture. Two late arrivals (more than 10 minutes) will count as one absence.

MIDTERM EXAM	November 3, 2025 (in class)
FINAL EXAM	TBD

Makeup Quiz/Exam Policy: There will normally be **NO MAKE-UP QUIZ or EXAMS** during the semester. In the event that a student has a legitimate reason for missing a quiz or exam, the student should contact the Dean of Students office and present written verifiable proof of the reason for missing the exam, e.g., a doctor’s note, police report, court notice, etc. clearly stating the date AND time of the problem. The student must also notify the instructor that the exam will be missed. Subsequent exams will then count double for the missed exam or quiz.

ADDITIONAL RESOURCES

Accommodation of Disabilities: Office of Accessibility Resources and Services (*formerly known as Disability Support Services*) offers long-term and temporary accommodations for undergraduate, graduate, and visiting students at NJIT.

If you are in need of accommodations due to a disability, please contact the Office of Accessibility Resources and Services at 973-596-5417 or via email at oars@njit.edu. The office is located in Fenster Hall Room 260. A Letter of Accommodation Eligibility from the Office of Accessibility Resources Services office authorizing your accommodations will be required.

For further information regarding self-identification, the submission of medical documentation and additional support services provided please visit the Accessibility Resources and Services (OARS) website at:

<https://www.njit.edu/studentsuccess/accessibility>

Important Dates 2025 Academic Calendar

Date	Event
Sept 2	First Day of Classes
Sept 8	Last day to add/drop a class
Nov 3	MIDTERM EXAM
Nov 10	Last Day to Withdraw from Class
Nov 27-30	Thanksgiving Recess
Dec 11	Last day of class
Dec 12	Reading Day
TBD	FINAL EXAM

Access entire calendar at <https://www.njit.edu/registrar/fall-2025-academic-calendar>

Course Outline

Week	Date	Topic	Assignment
1	Sept 1	Labor Day. University Closed	
2	Sept 8	Introduction to Digital Forensics	investigate the meaning of Digital Forensics and prepare to engage in a discussion about it
3	Sept 15	Tools and Technologies for Digital Forensics	Examine tools like VeraKey and Cellebrite and evaluate their features and capabilities
4	Sept 22	Building a Digital Forensics Laboratory	Research and understand the structure and use of the Decimal, Hexadecimal, Binary, and Octal numbering systems
5	Sept 29	Processes & Procedures	Create a comprehensive plan outlining the hardware, software, and other technologies required to set up a digital forensics laboratory
6	Oct 6	QUIZ 1 – After Quiz (Cell Site Location Data)	Investigate and explain what Call Detail Records (CDRs) are.
7	Oct 13	Extraction of Cellphones, Tablets & Other Devices Analysis of extracted data	Explain the reason an MD5 hash output is represented as a 32-character alphanumeric string
8	Oct 20	Authoring a Digital Forensic Report	Develop and document policies and procedures to guide operations within your digital forensics laboratory
9	Oct 27	QUESTIONS & REVIEW FOR MIDTERM	
10	Nov 3	MIDTERM EXAM	
11	Nov 10	Conduct a Forensic Analysis of Data Extracted from a Mobile Device	
12	Nov 17	Recognize the significance of identifying the source of extracted data	Prepare a mobile forensics report based on your analysis of the data extraction performed on a previous date
13	Nov 24	QUIZ 2 – After Quiz (Cellphone Location Data)	
14	Dec 1	QUESTIONS & REVIEW FOR FINAL	
15	Dec 8	Last Day of Class – REVIEW FOR FINAL	
16	Dec 12	Reading Day	
	TBD	FINAL EXAM	