

Fall 2023

## FRSC 201-001: Intro to Forensic Science

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## FRSC 201: Intro to Forensic Science

*Fall 2023*

*T/R 10:00-11:20am*

*GITC Room 1400*

*Course Syllabus*

### COURSE INFORMATION

**Course Description:** Forensic Science is the application of science to the law. This course introduces students to the many disciplines of forensic science and how they are used in our criminal justice system. Students will be introduced to the science behind these disciplines and how forensic science techniques are used in crime laboratories throughout the United States and abroad. Guest lecturers and practitioners will offer insights into their day-to-day investigative work and how they face technological challenges and success. The scientific method will be emphasized throughout the course. Finally, a large portion of the course will include interactive learning during class including mock crime scenes searches, in-class discussions, student presentations, virtual labs, and more.

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

### ACADEMIC INTEGRITY

*Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at: <http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf>.*

*Please note that my professional obligation and responsibility is to report any academic misconduct to the Dean of Students Office. **Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university.** If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at [dos@njit.edu](mailto:dos@njit.edu)*

#### Course-Section and Instructor

Course-Section	Instructor
FRSC 201-001	Prof. David Fisher
T/R 10:00-11:20am	Office: Tiernan Hall 323A or <a href="https://njit.webex.com/meet/dfisher">https://njit.webex.com/meet/dfisher</a>
	Office Hours: Tuesdays 11:30 am - 12:30 pm & by appt.
	Ph: 973-596-5295; email: <a href="mailto:dfisher@njit.edu">dfisher@njit.edu</a>

**Required Textbook:**

<b>Title</b>	Criminalistics: An Introduction to Forensic Science (13 <sup>th</sup> ed.)
<b>Author</b>	Richard Saferstein and Tiffany Roy
<b>Edition</b>	13
<b>Publisher</b>	Pearson
<b>ISBN #</b>	978-0-13-521831-0

and additional readings and videos as assigned. You must also have a computer with a reliable internet connection, webcam, and a microphone.

**University-wide Withdrawal Date:** The last day to withdraw with a **W** is Monday, Nov 13, 2023. It will be strictly enforced.

**Learning Outcomes:** Upon completion of this course, students will:

- Identify forensic science procedures and technologies used to examine and analyze physical evidence
- Evaluate the significance of physical evidence in a criminal investigation
- Identify applications of the scientific method when examining forensic evidence
- Communicate appropriate conclusions based on scientific data
- Apply critical thinking skills using methods of scientific inquiry by discussing recent high-profile cases
- Discriminate between generally accepted science and “junk science”
- Describe how science is used in the criminal justice system
- Understand how data influences legal decisions and shapes scientific reporting requirements
- Be able to identify cognitive bias and its impact on the forensic sciences
- Understand forensic science failures and ethical violations

## **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:

<b>Attendance/Class Participation</b>	5%
<b>Forensic Science Conference or Response Paper</b>	10%
<b>Assignments/Quizzes</b>	20%
<b>Midterm</b>	20%
<b>Term Paper</b>	15%
<b>Final Exam</b>	30%

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

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

**Attendance Policy:** Class attendance will be recorded and is **mandatory**. Each class is a learning experience that cannot be replicated through simply “getting the notes.” After one unexcused absence, each subsequent absence will result in your class participation score being lowered by one percentage point. (All excused absences need to go through the Dean of Students). You are expected to read the relevant chapters and/or reading assignments prior to the lecture. Two late arrivals (of more than 10 minutes) will count as one absence.

**Forensic Science Conference (10%):** There are three forensic science conferences that will be held in November: [The New Jersey State Division of the International Association of Identification Tri-State Education Conference](#) (Nov 1-3) will take place at the Hard Rock Hotel in Atlantic City, NJ; [The Northeastern Association of Forensic Scientists Annual Meeting](#) (Nov 6-10) at the Mystic Marriott in Groton, CT; and the [Eastern Analytical Symposium](#) (Nov 13-15) at the Crowne Plaza Princeton Conference Center in Plainsboro, NJ. In order to encourage attendance at these conferences, we will not have class on these dates. Please select one conference to attend and register for the conference at the student rate (you do not need to attend the entire conference.) Please email me to let me know if you require free transportation (via NJIT van) to the conference. To receive credit for attending a conference please send the certificate of attendance and a one-page response paper to one of the presentations/talks you attended. If you are unable to attend a conference, you may submit a 5-page response paper to the “I am Evidence” HBO documentary in lieu of the conference.

**Term Paper (15%):** The term paper assignment is for you to select a modern criminal case that has been previously adjudicated and discuss how the forensic science, in that case, played a critical role in the guilt or innocence of the defendant. The term paper is designed to evaluate your writing skills and your understanding of the forensics that were used in the trial. The term paper should be 7-8 pages in length (not including the title page or bibliography), double spaced, using Times New Roman 12-point font. You must get approval from me for your topic prior to the midterm. No two people may choose the same topic. Please enter your paper topic by replying to the “Term Paper Topics” Announcement. The term paper is due on the last day of class. All papers will be run through Turnitin.com to check for plagiarism and chatGPT. (Turnitin.com is a software program that analyzes papers for plagiarism and AI).

1. Analyze a relevant criminal case involving Forensic Science.
2. Develop a topic for the paper.
3. Create an appropriate design for the paper.
4. Identify and show how forensic science impacted the case.
5. Provide **at least 3** credible **peer-reviewed** sources from scientific journals. Ok to use other sources (i.e. news articles, media, popular texts etc.) in addition, but still need 3 peer-reviewed sources.
6. Communicate effectively through scholarly writing.

**For this paper**, you are expected to be able to locate and use library resources effectively and cite them correctly using in-text citations and a works cited page. Googling alone will not suffice. Most of the library materials are available online 24/7 from anywhere. Quinn Morris-Pearson is the NJIT librarian who provides assistance to students in Forensic Science. Contact her at [quinn.i.morris-pearson@njit.edu](mailto:quinn.i.morris-pearson@njit.edu) and take advantage of her expertise.

**Exams/Quizzes:** Exams and quizzes will be taken online through Canvas. Exams will cover the readings and lectures. You will need to download Lockdown Browser and Respondus Monitor as the exams will be given through these platforms. You will also need a computer, webcam, and good internet connection when taking the exams. The Final Exam will be comprehensive and will test your knowledge of all the course material taught in the entire course.

Midterm	Oct 17, 2023 (in class)
Final Exam	Final Exam Week (Date 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 an 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 (See: [2023 Academic Calendar](#))

Date	Event
Sept 5	First Day of Classes
Sept 11	Last day to add/drop a class
Nov 21	Thursday classes meet
Nov 23-26	Thanksgiving Recess
Dec 13	Last day of classes
Dec 14-15	Reading Days
Dec 17-23	Final Exams

## Course Outline

Week	Date	Topic	Assignment
1	Sept 5	Introduction; Professional Practice	Read Ch1
	Sept 7	A Brief History of Forensics ( <a href="https://www.youtube.com/watch?v=7fF2wXgYd8o">https://www.youtube.com/watch?v=7fF2wXgYd8o</a> )	Watch Netflix " <a href="#">How to Fix a Drug Scandal</a> " series
2	Sept 12	Quality Assurance; Ethics	Read <a href="#">ABC Code of Ethics</a>
	Sept 14	<b>Quiz 1</b> ; Ethics Presentations (in class prep)	
3	Sept 19	Ethics Presentations (National Forensic Science Week)	
	Sept 21	Ethics Presentations (National Forensic Science Week)	Read Ch2
4	Sept 26	The Crime Scene	Read Ch3; <a href="#">Federal Rules of Evidence</a>
	Sept 28	<b>Quiz 2</b> ; Physical Evidence, Identification, Collection & Processing	
5	Oct 3	NJIT Library Presentation	Read Ch4

	Oct 5	Crime Scene Reconstruction; Bloodstain Pattern Analysis(BPA)	Read Ch5
6	Oct 10	Death Investigation; The Autopsy	Read Ch6
	Oct 12	Fingerprints	
7	Oct 17	<b>Midterm</b>	Read Ch9
	Oct 19	Firearms and Toolmarks	Read Ch12
8	Oct 24	Drugs	Read Ch15
	Oct 26	<b>Quiz 3</b> ; Serology	Read Ch16
9	Oct 31	DNA and Forensic Genetic Genealogy	
	Nov 2	<a href="#">NJIAI Meeting</a> (Atlantic City, NJ) class will not meet	<b>View “I am Evidence” Documentary Film</b>
10	Nov 7	<a href="#">NEAFS Meeting</a> (Mystic, CT) class will not meet	
	Nov 9	<a href="#">NEAFS Meeting</a> (Mystic, CT) class will not meet	<b>“I am Evidence” Documentary Response Paper if not attending a conference</b>
11	Nov 14	<a href="#">EAS Symposium</a> (Princeton, NJ) class will not meet	Read Ch17
	Nov 16	Fire Investigation In class fire scene: Arson or Accidental?	Read Ch18
12	Nov 21	<b>Quiz 4</b> ; Document Examination (Thurs classes meet)	
	Nov 23	Thanksgiving (No class – University Closed)	Read Ch19-20
13	Nov 28	Digital Forensics	
	Nov 30	Guest Speaker	
14	Dec 5	<b>Quiz 5</b> ; Introduction to Law; Courtroom Testimony	Work on Term Papers
	Dec 7	Bias: Are we guilty of it?	Work on Term Papers
15	Dec 12	Review for Final; Last Day of class	<b>Term Papers Due</b> ; Study for Final
	TBA	<b>Final Exam</b>	

*Updated by David Fisher - August 21, 2023  
Department of Chemistry & Environmental Sciences  
Course Syllabus, Fall 2023*