

Fall 2024

## FRSC 201-001: Intro to Forensic Science

David Fisher

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## FRSC 201-001: Intro to Forensic Science

*Fall 2024*

**T 10:00-11:20am (CKB 226)**

**Th 10:00-11:20am (FMH 319)**

### Course Syllabus

#### COURSE INFORMATION

**Course Description:** Forensic Science is the application of STEM to the legal matters. 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 scene 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
	Office Hours: Tuesdays 11:30 am - 12:30 pm or 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 11, 2024. 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>Assignments</b>	15%
<b>Exams (15% per exam)</b>	45%
<b>Final Exam</b>	35%

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.

**Exams:** Exams will be taken online through Canvas. Exams will cover the lectures AND reading assignments. 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 over the entire course.

Exams	Oct 1, Oct 31, and Nov 21 (in class)
Final Exam	Final Exam Week (Date TBD)

**Makeup Exam Policy:** There will normally be **NO MAKE-UP EXAMS** during the semester. In the event that a student has a legitimate reason for missing an 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.

## 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](mailto: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](#).

**Important Dates** (See: [2024 Academic Calendar](#))

Date	Event
Sept 3	First Day of Classes
Sept 9	Last day to add/drop a class
Nov 26	Thursday classes meet
Nov 28-30	Thanksgiving Recess
Dec 11	Last day of classes
Dec 12-13	Reading Days
Dec 15-21	Final Exams

# Course Outline

Week	Date	Topic	Assignment
1	Sept 3	Introduction; Professional Practice	Read Ch1 & Summary of <a href="#">NAS Report</a>
	Sept 5	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 10	Quality Assurance; Ethics	Read <a href="#">ABC Code of Ethics</a>
	Sept 12	Ethics Presentations (in class prep)	
3	Sept 17	Ethics Presentations (National Forensic Science Week)	
	Sept 19	Ethics Presentations (National Forensic Science Week)	Read Ch2
4	Sept 24	The Crime Scene	Read Ch3 & <a href="#">Federal Rules of Evidence #702</a>
	Sept 26	Evidence identification, collection, processing, and chain of custody	
5	Oct 1	<b>Exam #1</b>	
	Oct 3	<b>No Class (View "<a href="#">I am Evidence</a>" Documentary Film)</b>	Response Paper; Read Ch4
6	Oct 8	Crime Scene Reconstruction; Bloodstain Pattern Analysis (BPA)	Read Ch5
	Oct 10	Death Investigation; The Autopsy	Read Ch6
7	Oct 15	Fingerprints	
	Oct 17	<b>Guest Speaker</b>	
8	Oct 22	<a href="#">NEAFS Meeting</a> (Atlantic City, NJ) Class will not meet	Extra credit will be given if you attend
	Oct 24	<a href="#">NEAFS Meeting</a> (Atlantic City, NJ) Class will not meet	the conference (1% of total grade/day)
9	Oct 29	Firearms and Toolmarks	Read Ch9
	Oct 31	<b>Exam #2</b>	Read Ch12
10	Nov 5	Drugs	Read Ch15
	Nov 7	Serology	Read Ch16
11	Nov 12	DNA and Forensic Genetic Genealogy	Read Ch17
	Nov 14	Fire Investigation; In-class fire scene: Arson or Accidental?	Read Ch18
12	Nov 19	Forensic Document Examination (FDE)	
	Nov 21	<b>Exam #3</b>	Read Ch19-20
13	Nov 26	Digital Forensics	
	Nov 28	Thanksgiving (No class – University Closed)	<b>Read:</b> <a href="#">Frye v. United States, 293 F. 1013 (D.C. Cir. 1923)</a> <a href="#">Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993)</a> <a href="#">Kumho Tire Co. v. Carmichael, 526 U.S. 137 (1999)</a>
14	Dec 3	Introduction to Law; Courtroom Testimony	Read <a href="#">Dror Paper</a>
	Dec 5	Cognitive Bias: Are we guilty of it? / Human Factors	
15	Dec 10	Report writing & case review; Review for Final	
	TBA	<b>Final Exam</b>	