Spring 2022

FRSC 201-002: Intro to Forensic Science

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NJIT New Jersey Institute of Technology

THE COLLEGE OF SCIENCE AND LIBERAL ARTS

THE DEPARTMENT OF CHEMISTRY AND ENVIRONMENTAL SCIENCE

FRSC 201: Intro to Forensic Science

Spring 2022

W/F 10:00-11:20am

My WebEx room:

https://njit.webex.com/meet/dfisher

or

Tiernan Lecture Hall 1

Course Syllabus

NJIT Academic Integrity Code: Students are asked to practice extra care and attention in regards 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. Students may not collaborate on exams or assignments, directly or through virtual consultation, unless the instructor gives specific permission to do so. 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 as a violation of the honesty policy. All students should be familiar with the NJIT Academic Integrity Code.

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

Course-Section and Instructor

Course-Section	Instructor
FRSC 201-002	Prof. David Fisher
W/F 10:00-11:20am	Office: Tiernan Hall 323A or https://njit.webex.com/meet/dfisher
	Office Hours: W at 11:30am & by appt.
	Ph: 973-596-5295; email: dfisher@njit.edu

Required Textbook:

Title	Criminalistics: An Introduction to Forensic Science (13th ed.)
Author	Richard Saferstein and Tiffany Roy
Edition	13
Publisher	Pearson
ISBN #	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, April 4, 2022. 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 through 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:

Class Participation	10%
Assignments	15%
Midterm	20%
Term Paper	20%
Final Exam	35%

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: 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.

Term Paper: 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 5-6 pages in length (not including 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. (Turnitin.com is a software program that analyzes papers for plagiarism).

1. Analyze a relevant criminal case involving Forensic Science.
2. Develop a topic for the paper.
3. Create an appropriate design.
4. Identify and show how forensic science impacted the case.
5. Provide **at least 3** credible **peer reviewed** sources from scientific journals. The word "forensic" must appear in the title of these scientific journals. Ok to use other (i.e. news articles, media, etc.) sources in addition.
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. Googling alone will not suffice. Most of the library materials are available online 24/7 from anywhere. Joseph Mercuri is the NJIT librarian who provides assistance to students in Forensic Science. Contact him at jmercuri@njit.edu and take advantage of his expertise.

Exams: Exams will be taken on-line through Canvas. Exams will cover the readings and lecture. 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 26, 2021
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. A written assignment will be given in place of any 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 Chantonette Lyles, Associate Director at the Office of Accessibility Resources and Services at 973-596-5417 or via email at lyles@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: 2022 Academic Calendar)

Date	Event
Jan 18	First Day of Classes
Jan 24	Last day to add/drop a class
March 14-19	Spring Break
April 4	Last day to withdraw
April 15	No Class scheduled
May 3	Last day of classes/Friday classes meet
May 4-5	Reading Days
May 6-12	Final Exams

Course Outline

Week	Date	Topic	Assignment
1	Jan 19	Introduction; What is Forensic Science? (will meet remotely)	Read Ch1
	Jan 21	A Brief History of Forensics (https://www.youtube.com/watch?v=7fF2wXgYd8o)	
2	Jan 26	NJIT Library Presentation	
	Jan 28	Ethics & What would you do hypotheticals	Read ABC Code of Ethics
3	Feb 2	Ethics Presentations	Watch Netflix "How to Fix a Drug Scandal" series
	Feb 4	Ethics Presentations	Read Ch2
4	Feb 9	The Crime Scene w/interactive search of virtual scene	
	Feb 11	Guest speaker	Read Ch3; Federal Rules of Evidence
5	Feb 16	Physical Evidence	Read Ch4
	Feb 18	Crime Scene Reconstruction; Bloodspatter analysis	
6	Feb 23	AAFS meeting	
	Feb 25	AAFS meeting	Read Ch5
7	Mar 2	Death Investigation; In-class virtual autopsy	Read Ch6
	Mar 4	Fingerprints	
8	Mar 9	Guest Lecture (**Joseph De Alcaraz-Fossoul, PhD**)	
	Mar 11	**Midterm**	
	Mar 14-18	Spring Break	
9	Mar 23	Forensic Science Summit with Office of Public Defender	Read Ch9

	Mar 25	Firearms and Toolmarks	Read Ch12
10	Mar 30	Drugs	Read Ch15
	Apr 1	Serology	Read Ch16
11	Apr 6	DNA and Forensic Genetic Genealogy	Read Ch17
	Apr 8	Fire Investigation In class fire scene: Arson or Accidental?	Read Ch18
12	Apr 13	Document Examination	
	Apr 15	Good Friday (No class – University Closed)	Read Ch19-20
13	Apr 20	Digital Forensics (Guest speaker)	
	Apr 22	Guest speaker	Work on Term Papers
14	Apr 27	Introduction to Jurisprudence; Expert Testimony	
	Apr 29	Bias: Are we guilty of it?	
15	May 3 (Tues)	Review for Final; Last Day of class	**Term Papers Due;** Study for Final
	TBD	**Final Exam**	