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Fall 2019

FRSC 201-001: Introduction to Forensic Science

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THE DEPARTMENT OF CHEMISTRY AND ENVIRONMENTAL SCIENCE

FRSC 201: Intro to Forensic Science Fall 2019 Course Syllabus Thursdays 2:30-5:20p FMH 203

<u>NJIT Academic Integrity Code</u>: All Students should be aware that the Department of Chemistry & Environmental Science (CES) takes the University Code on Academic Integrity at NJIT very seriously and enforces it strictly. This means that there must not be any forms of plagiarism, i.e., copying of homework, class projects, or lab assignments, or any form of cheating in quizzes and exams. Under the University Code on Academic Integrity, students are obligated to report any such activities to the Instructor.

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.

Number of Credits: 3

Prerequisites: none

Course-Section and Instructor

Course-Section	Instructor
FRSC 201-001	David Fisher
Th 2:30-5:20pm	Office: 385 Tiernan Hall
Faculty Memorial Hall 203	Office Hours: W 11:30a-12:30p & R 1:30-2:30p
	Ph: 973-596-5295; email: <u>dfisher@njit.edu</u>

Required Textbook:

Title	Criminalistics: An Introduction to Forensic Science (12 th ed.)
Author	Richard Saferstein
Edition	12
Publisher	Pearson
ISBN #	978-0-13-447759-6

and additional readings as assigned.

University-wide Withdrawal Date: The last day to withdraw with a **W** is Monday, November 11, 2019. 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%
Quizzes	20%
Midterm Exam	20%
Term Paper (15%) / Oral Presentation (5%)	20%
Final Exam	30%
Extra Credit will be given for attending NJIAI, NEAFS, or EAS	3% per conference
Extra Credit for attending Friday Forensic Seminar Series talks	1% per seminar

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

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

Attendance Policy: Attendance at classes will be recorded and is mandatory. Each class is a learning experience that cannot be replicated through simply "getting the notes." After two unexcused absences, each subsequent absence will result in your class participation score being lowered by one percentage point. You are expected to read the relevant chapter and/or reading assignment prior to the lecture. Students who participate in lecture will receive points towards their class participation grade.

Quizzes: 10 Quizzes will be given during the semester. These will be taken on-line through Canvas. You will have until the beginning of the following class to complete the quiz on your own time. The quizzes will cover the reading and lecture. You will need to download Lockdown Browser and Respondus Monitor as the quizzes will be given through these platforms. You will also need a computer and good internet connection when taking the quizzes.

Term Paper/Case Presentation: The term paper assignment is for you to select a criminal case that has been previously adjudicated and discuss how the forensic science in the case played a critical role in the outcome of the case. The term paper is designed to evaluate your writing skills and your understanding of the forensics that were used in the trial. The oral presentation of your selected case will also give you experience with public speaking, which is necessary when testifying as an expert witness in a court of law. The term paper should be 5-6 pages in length, double spaced, using Times New Roman 12 point font. You must get approval from me for your case by the date of the midterm. The term paper is due on the last day of class and must be turned in using Turnitin.com. (Turnitin.com is a software program that analyzes papers for plagiarism). The case presentation should be 8-10 minutes in length and approximately 10 slides. Slides should contain no more than 3-5 bullet points per slide. Pictures and figures are ok to use. Do not read off of the slides during your presentations **should also be submitted using Turnitin.com** and are **due before your assigned presentation date**. To successfully complete the presentation, you will be expected to:

- 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 credible academic and peer reviewed sources (at least 3). Ok to use other sources in addition.
- 6. Communicate effectively through scholarly writing.
- 7. Deliver a summary of your paper (your oral presentation) to the class using PowerPoint or Google Slides on your assigned presentation day.

Exams: There will be one midterm exam held in class during the semester and one comprehensive final exam. The following exam periods are tentative and therefore possibly subject to change:

Midterm Exam	October 24, 2019
Final Exam Period	Dec 14-20, 2019

The final exam will test your knowledge of all the course material taught in the entire course.

Forensic Science Seminar Series: Throughout the semester we will have outside speakers who are experts in their respective forensic fields. These will be held on Fridays at 11:30am. Students should make every effort to attend and will receive one percentage point extra credit by attending the lecture and signing the sign-in sheet.

Makeup Exam Policy: There will normally be NO MAKE-UP QUIZZES 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 mitigating problem. The student must also notify the CES Department Office/Instructor that the exam will be missed so that appropriate steps can be taken to make up the grade.

Cellular Phones: All cellular phones and other electronic devices must be switched off during all class times. Such

devices must be turned in during exams.

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:

• <u>http://www5.njit.edu/studentsuccess/disability-support-services/</u>

Important Dates (See: Fall 2019 Academic Calendar, Registrar)

Date	Day	Event
September 3	Т	First Day of Classes
September 13	F	Last Day to Add/Drop Classes
November 11	Μ	Last Day to Withdraw
November 26	Т	Thursday classes meet
November 28-Dec 1	Th-Su	Thanksgiving Recess
December 11	W	Last Day of Classes
December 12-13	Th-F	Reading Days
December 14-20	Sa-F	Final Exam Period

Course Outline

Lecture	Date	Τ	Assignment
1	Sept 5	Introduction; Professional Practice; History of Forensics	Ch. 1; AAFS website; Q1
2	Sept 12	Field Trip to 9/11 Museum—we will be taking the PATH	ABC Code of Ethics; AAFS Code (Art II)
3	Sept 19	Ethics	Chs 2-3; Q2
4	Sept 26	The Crime Scene and Physical Evidence	Chs 4-5; Q3
5	Oct 3	Bloodstain Pattern Analysis and Death Investigation	Q4
6	Oct 10	NJIAI conference (register at www.njiai.org)	Ch. 6; Q5
7	Oct 17	Fingerprints	Q6; Study for midterm
8	Oct 24	Midterm	
9	Oct 31	Forensic Nursing; Guest speaker Christine Ruggiero	Chs 12-13; Q7
10	Nov 7	Drugs / Forensic Toxicology; Guest speaker Bill Dunn	Q8
11	Nov 14	NEAFS conference (register at www.neafs.org)	Chs 15-16
12	Nov 21	Forensic Serology and DNA	Chs 18; Q9

	Nov 26 (Tues)	Document Examination / Class Presentations I	Q10
14	Dec 5	Class Presentations II	Review for final
15	Week of Dec 16	Final	