412:327/525 - Forensic Theory & Policy

Instructor: Kimberlee Moran, MSc, RPA (k.moran@camden.rutgers.edu) June 22 – July 16; Class meets via Canvas M, T, W, Th 11am-12pm; July 16 11am-1.30pm

Course Description

Forensic Science Theory & Policy is a four-week, online course that runs from Monday, June 22nd - Thursday July 16. It is designed to introduce students to the basic theories and concepts that underlie all aspects of forensic science as a profession. By the end of the course students will have:

- been introduced to the general field of forensic science;
- been given an overview of the many types of forensic science;
- learned how forensic science fits into the US criminal justice system;
- learned how forensic science is regulated;
- written a research paper through a series of stages aimed at improved writing;
- explored several issues within the profession of forensic science such as standards, ethics, and human rights.

Course Learning Goals

By the end of this course, students will be able to:

- 1. Articulate how forensic science is structured and regulated in the USA
- 2. Describe what the CSI effect is and how it affects forensic science
- 3. Identify and use sources that are considered authoritative within forensic research
- 4. Verbally communicate using both opinion and fact within forensic science policy-making
- 5. Differentiate between opinion and fact within forensic science policy-making
- 6. Structure a forensic science research paper and a scientific report
- 7. Critically assess forensic evidence

Required Texts

All materials will be posted in the course Canvas site. Only Graduate students (those registered under 56:412:525) need to purchase the book "*Just Mercy*" (JM) by Bryan Stevenson. Undergraduates have no book requirement.

Online Format & Schedule

This course is structured into weekly modules that run from Mon-Thurs. We will have one required synchronous meeting each day at 11am-12pm. Additionally, you'll have frequent deadlines throughout each module. Our final class (July 16) will meet from 11am-1.30pm for a mock trial.

The class follows a rigorous schedule and you should plan to log into Canvas and work every day. You should expect to spend between 12-20 hours completing coursework and reading a week.

Weekly Modules

Bold = class assignment (instructions and submission under "Assignments" on Canvas)

Italics = subject matter/ topic (reading & videos under "Modules" on Canvas)

Underline = online, synchronous session (11am-12pm M-Thu via the "Conferences" tab on Canvas)

Wk	JM pgs	Mon	Tues	Wed	Thurs
June 22 –	3-91	Welcome	Making Science	The Rainbow of	The CSI Effect
June 25		History of FS	Forensic	Forensic Science	The CSI effect
		Writing Basics	<u>Discussion of Forensics</u>	Sources of FS research	CSI exercise due by
For Sci		Class Survey	on Trial	Journal Article due	Monday
Foundations		Watch "Forensics on			
		Trial"			
June 29 –	92-	Crime Scene to Court	Crime Scene	Forensic Science	Expert testimony
July 2	162	Outlining a research	Investigation	regulation	Preparing for court as
		paper	Case review	Foodstamp discussion	an expert witness
For Sci			Reaction Paper due	Short paper outline &	
Process				bibliography due	
July 6 – July	163-	Mass fatality Incidents	Forensic Science &	Cognitive Bias	Exam
9	242	FEMA courses	Human Rights	Forensic Science &	Peer review papers by
			Privileges exercise	<u>ethics</u>	Monday
FS outside				Short paper draft due	
of CJ					
July 13 –	242-	Crime Science	Forensic Genealogy &	Wrongful Conviction	Mock Trial until 1.30pm
July 16	316	Peer review discussion	databases	Innocence discussion	
		FEMA courses due	Policy Debates	Expert Statements due	
For Sci &			Watch Innocence Files		
policy					

Module Descriptions

Week 1 – Forensic Science Foundations (the basics)

Welcome, Course overview, Useful resources, History of forensic science. This session will provide an introduction to the course and the assignments for the semester. A number of useful forensic resources will be covered such as key texts, journals, online databases, and networking sites. We will also cover online learning platforms to be utilized, mainly Canvas. The course will officially start with an overview of the history of forensic science and major milestones for the discipline. Students will be required to complete a start-of-class survey and to choose a type of forensic science that they will follow throughout the semester.

Writing Basics. These days, all professors complain that students don't know how to write and rely too heavily on the internet for research. This session will cover some writing basics. We will have "fun' with grammar and do some writing activities during on online class meeting.

Making Science Forensic: methodology, protocols, & procedures. What differentiates "science" from "forensic science?" This session will cover the protocols, procedures, and the theoretical framework that governs forensic scientists. How should a forensic expert approach evidence? Is there a difference between working for the prosecution or the defense?

The "Rainbow" of Forensic Science. Forensic science comes in main flavors; there is something for everyone! We will use the Organization of Science Area Committees (OSAC) structure to explore the different disciplines that make up "forensic science".

Sources of Forensic Science Research. As you start to prepare to write a short forensic science research paper, we will learn where to find good sources of research and the difference between a good reference and a bad one.

Forensic science, the media, and the CSI effect. The recent glut of forensic television series, both fictional and "factual," has caused a noticeable impact on the discipline. As these series prove to be hugely popular, how have they influenced our views of forensic science? From the "educated" jury to the unquestioning public defender, the media portrayal of forensic expertise has a lot to answer for. How do we combat this influence both in the jury, and in ourselves? This session will explore the pros and cons of the "CSI effect" and how we can effectively work alongside it.

Week 2 - The Forensic Science Process (from crime scene, to lab, to court)

From crime scene to court. This session will cover the full process of a criminal investigation in New Jersey from the moment a crime is reported, to the examination of the crime scene, to the submission of evidence in the lab, to the presentation of evidence in a court of law. We will also look at where investigations can break down forensically.

Crime scene investigation. Most often associated with forensic science, crime scene investigation is not science at all. Rather it is the methodology by which a scene is processed and evidence is collected for later analysis by forensic scientists. We will examine this methodology in a number of jurisdictions and in scenarios ranging from a common burglary to a large-scale terrorist attack. We will discuss documentation of the scene, identifying and preserving evidence, chain of custody, and several illustrative case studies such as the OJ Simpson case.

Forensic science regulation. Federal agencies, commissioned reports, and case law have all played a role in the admissibility and regulation of forensic evidence. This session will explore the Daubert trilogy, the National Institute of Standards and Technology (NIST), the infamous 2009 NAS report, and the 2016 PCAST report. We will discuss issues surrounding cognitive bias, standards, and the state of forensic science practice in the USA.

Preparing expert testimony for court. This session will focus on the culmination of all investigations and forensic analyses – the criminal trial. Specifically, we will examine the role of expert witnesses. Many of the topics from previous sessions will be reviewed such as the CSI effect on juries, the Daubert criteria, and the NAS report. Finally, we will cover the expert witness statement. Students will create a case in which they served as the scientist. They will draft an expert witness statement that will be examined and cross-examined in the mock trial on the last day of class.

Week 3 – Forensic Science outside of Criminal Justice (other areas in which forensic science is useful)

Mass fatality incidents. A mass fatality incident is one in which the number of causalities exceeds the local resources. These can be either natural disasters or man-made events. We will look at several types of mass fatality incidents and the response framework. We will also cover the national Incident Management System (NIMS) and the role of FEMA (Federal Emergency Management Agency). Finally, we will investigate several recent mass fatality incidents and the role of forensic scientists in the subsequent investigations.

Forensic science and human rights. Forensic techniques such as forensic anthropology and archaeology are frequently used to recover and identify victims of human rights abuses who have been interred in mass graves. We will discuss several cases brought before the European Court of Human Rights, the International Criminal Court, and the International Court of Justice. The second half of the session will look at the human rights implications of DNA and fingerprint databases and how forensic techniques can impinge on privacy rights.

Cognitive Bias. Cognitive bias, also known as decision-making bias, is detrimental to our ability to be impartial purveyors of truth. We will cover the different types of biases and how to mitigate against them.

Week 4 - Forensic Science & public policy

Crime Science. Crime science is one of the newer tools to criminal justice. It aims to combine the knowledge of the causes of crime (criminology) with a range of other disciplines (such as epidemiology) to "out-design" and prevent crime. Both forensic science and crime science impact policy making.

Forensic Science Policy Debates. Students will be put into teams. We will discuss several current issues related to forensic science and criminal justice policy.

Forensic genealogy, databases, and ethics. Technology is a wonderful thing but often our ability to determine limits and protections lags behind the application of tech especially in the realm of public safety. We'll learn how forensic genealogy became a thing, how our personal data is being collected and used, and discuss the ethical implications of balancing personal privacy and public good.

Wrongful convictions. We will examine the causes of wrongful convictions, how forensic science can be at fault or can help exonerate, and we will discuss a case of wrongful conviction featured on "The Innocence Files".

Mock trial. The final sessions for this course will be a mock trial in which each student will appear as an expert witness to be examined and cross-examined.

Graduate Students

For students enrolled under 56:412:525, you will be required to read the book "Just Mercy" by Bryan Stevenson and participate in a weekly online discussion forum. On Monday of each week, the professor will post 2 to 3 discussion questions. You will be required to post your discussion entries to each question by Thursday each week and reply to two of your classmates' discussion entries by Monday of the following week.

The purpose of the discussions are to get you to **think critically about the readings.** Use the discussion space to make direct connections between course content and your own experiences. The discussions will take place within the Discussions tool on Canvas.

When crafting your response, remember...

- You should address the question(s) fully and draw connections to **course content** and **your own experiences** in your response.
- Please use mostly standard English grammar for your response. Occasional Internet slang or emoji/gif use is not completely prohibited, as I do understand this can help set the tone of your thoughts. And maybe emojis actually invade your thoughts on a daily basis at this point.

Assessment: Discussion post grading rubric

Exceeding Expectations 10 points	 Discussion post comprehensively addresses the topic, adds value to discussion with stimulating posts Posts in-depth, incisive reflections that demonstrate critical thinking; shares real-world experiences and examples Well-written posts made within required time frame; no grammar/spelling errors Exhibits creativity in topic title
Meeting Expectations 8-9 points	 Discussion post is on-topic, relevant, and contain original content Shows evidence of knowledge and understanding of content with clear connections to real-life examples Posts are submitted by deadlines, use complete sentences and rarely have grammar/spelling errors Responds substantively to a classmate's post
Emerging Towards Expectations 7 points	 Posts are on-topic, but may lack originality and/or fail to elicit reflections from or build on ideas of others; examples may be made but may be irrelevant or unclear how they connect to course content Posts may be submitted late or contain multiple grammar and/or spelling errors Does not respond to a classmate's post

Below Expectations 1-6 points	 Discussion post does not contain enough reference back to original topic or may not address the issue at hand sufficiently Little evidence of knowledge/understanding of course content is shown; examples missing Posts contain incomplete sentences and/or may not adhere to standard English grammar/spelling
Cannot Judge (Missing)	Student did not complete discussion.
0 points	

Assignments & Assessments

The assessment for this course consists of <u>twelve</u> (12) components each contributing to the final grade as outlined below. All assignments are listed and described on the course's Canvas site and all submissions should be electronic. In cases of large file sizes, the assignment can be stored on Google Drive or Dropbox and a link to it can be submitted to Canvas. All submissions must be compatible with PC computers (e.g. files extensions .pdf, .doc, .docx, .ppt, .pptx, etc). The assignments are as follows:

- 1. Start-of-class survey& choose a type of Forensic Science
- 2. Journal article exercise
- 3. CSI exercise & presentation
- 4. Reaction Essay
- 5. Short paper outline & Bibliography
- 6. Short paper draft
- 7. Exam: this exam will be taken online via Canvas. A notification will be sent out when the exam is available. It will consist of multiple choice, True/False, short answer, and essay questions.
- 8. Short paper peer review
- 9. Short paper final draft due
- 10. FEMA courses
- 11. Expert Witness Statements
- 12. Participation in on-line class sessions/discussions/mock trial

Evaluation and Grading

Start-of-class survey& choose a type of Forensic Science	5%
Journal article exercise	5%
CSI exercise & presentation	5%
Reaction Essay	5%
Short paper outline & Bibliography	5%
Short paper draft	10%
Exam	10%
Short paper peer review	10%
Short paper final draft due	10%
FEMA courses	10%
Expert Witness Statements	10%
Class Participation & Attendance	15%
Total	100 points

Late assignment guidelines

Please let me know if you are struggling to keep up with the work. I know missing deadlines can be stressful! Sometimes it's just a one-time thing and other times it can snowball. I don't want you to get trapped in this cycle—I can help!

If you think you might miss a deadline:

- 1. Please contact me ahead of time if you believe you will not be able to complete an assignment on time to see if we can make other arrangements. This is always a better option than waiting after the due date for an assignment has passed!
- 2. Email me whatever you have before the deadline. If I have something from you, no matter how incomplete, the first day's late penalty will be halved.
- 3. Keep in contact with me until you have finished. We can make a plan together to keep you on track.

Writing GenEd

This course has been given a "W" designation as it is a writing-intensive course. Students will complete a minimum of 20 pages of writing over the course of the semester and will conduct writing that is specific to the discipline of forensic science. Students are encouraged to submit drafts of papers and witness statements prior to the assignment due date in order to develop their writing skills. Students are also encouraged to make use of the Rutgers Learning Center and the Writing Tutors on staff. All writing submissions must be done via the course CANVAS site and should be in .pdf, .doc, or .docx format. Coverpages, bibliographies, images and graphs/tables are in addition to the page limit. Late submissions with have

10% deducted from the final grade for every day late. The first class session will cover some writing basics, resources, and instructor expectations. It is advised that students use "The Brief Penguin Handbook" as a writing resource guide.

Class Participation

Participation in each online class session by the student is crucial to exemplify the student's understanding of the material. Each student is expected to read any assigned material in advance and come to each online session prepared to discuss the topic. All reading material will be disseminated via Canvas.

Attendance

Please make every effort to be present for our synchronous session and be on time. If you do not attend synchronous sessions you will miss information that you will be responsible for on assessments and you will miss the opportunity to participate which will affect your grade

Late Assignments

Unless you have a legitimate excuse, absence, or emergency, you may not make-up any missed work and will thus receive a 0 for that assignment. Late assignments will not be graded and the student will receive a 0 for the assignment turned in late.

Academic Policies

Each student in this course is expected to abide by the University Code of Academic Integrity (https://fas.camden.rutgers.edu/faculty/faculty-resources/academic-integrity-policy/). Any work submitted by a student in this course for academic credit will be the student's own work. All writing assignment should be an original work by a student. Students are highly recommended to educate themselves on the subject;

http://library.camden.rutgers.edu/EducationalModule/Plagiarism/whatisplagiarism.html

Forensic science is a profession that is internally maintained by ethics and personal integrity.

Classroom Courtesy

Please try to avoid drifting off to other activities while logged in to our synchronous session. Please turn cell phones off during online sessions. This class involves the discussion of issues that can get heated. Please be respectful of those with different opinions from your own.

Students with Disabilities

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: https://ods.rutgers.edu/students/documentation-guidelines. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of

Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: https://ods.rutgers.edu/students/registration-form