

412:327/525 & 601:747 – Forensic Theory & Policy

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Class meets via Canvas Fridays 12.30-1.30pm (synchronous class session); 1.30pm-2.30pm (*Just Mercy* discussion session); Mock trial Nov 25 & Dec 4 12.30-5.15pm

Course Description

Forensic Science Theory & Policy is an online course that combines students from the MSFS program, forensic minor students, and Law students. 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;
- explored several issues within the profession of forensic science such as standards, ethics, and human rights;
- practiced how to communicate forensic expertise both in written and oral form.

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 (A&S);
7. Structure a Daubert motion (Law);
8. 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 and Law students have no book requirement but may read "Just Mercy" for extra credit.

Online Format & Schedule

This course is structured into weekly sessions that run from Mon-Fri. Asynchronous material and assignments will be posted on Canvas and should be completed between Monday and Thursday. We will have one required synchronous meeting per week on Fridays at 12:30-1:30pm. Additionally, you will have frequent deadlines throughout the semester. Our final two weeks (Nov 25 & Dec 5) will be devoted to a mock trial. Students will be placed into groups and will only need to appear online during their assigned group time.

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 Sessions

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

Underline = online, synchronous session (12:30-1:30pm Fri via the “Conferences” tab on Canvas)

Bold = class assignment (instructions and submission both within “Modules” and under “Assignments” on Canvas)

Blue = Law students only

Purple = A&S students only

Black = All students

Wk	Date	Topic (Canvas)	<u>Online, Synchronous Session</u>	Assignment (usually due on Weds)	JM pgs
1 (Law)	Aug 28	Welcome, Intro to Expert Witnesses	<u>Intro & Overview, FRE 104</u>	Read Ch. 8, Review FRE 104	
1 (A&S)	Sept 4	Welcome, History of Forensic Sci	<u>Writing Basics & Outlining a Research Paper</u>	Flip Grid Intro Class Survey Watch “Forensics on Trial”	
2	Sept 11	<i>Making Science Forensic</i>	<u>Discussion of Forensics on Trial</u>	CSI exercise	3-34
3	Sept 18	<i>The Rainbow of Forensic Science</i>	<u>Sources of FS research</u>	FS research assignment	35- 66

4	Sept 25	<i>The CSI Effect</i>	<u>The CSI effect</u>	Reaction Paper	67-91
5	Oct 2	<i>Forensic Science regulation & Daubert</i>	<u>Daubert challenges</u>	Short paper outline & bibliography due	92-126
6	Oct 9	<i>Forensic Science & Human Rights</i>	<u>Foodstamp discussion</u>	Daubert motion outline	127-146
7	Oct 16	<i>Crime Scene to Court & Crime Scene Investigation</i>	<u>CSI Case review</u>	Mid-term Exam	147-185
8	Oct 23	<i>Expert testimony</i>	<u>Preparing an expert witness report / statement</u>	Short paper draft	186-226
9	Oct 30	<i>In Court: Direct and Cross-examination of an Expert Witness</i>	<u>Questioning Skills</u>	Peer review papers; Daubert Motion due	227-255
10	Nov 6	<i>Cognitive Bias & FS Ethics</i>	<u>Peer review discussion; Witness Prep</u>	Watch Innocence Files, ep 3	256-294
11	Nov 13	Wrongful Convictions	<u>Innocence discussion</u>	Groups 1-4 Witness Statements	295-316
12	Nov 20	<i>Crime Science Forensic Genealogy & databases</i>	<u>Policy Debates</u>	Groups 5-8 Witness Statements	
13	Nov 25 (Wed)	No asynchronous material; Witness Prep	<u>Mock Trial (2 rooms)</u> Session 1: 12.30-2.30pm (Group 1 & 2) Session 2: 2.45-5.15pm (Group 3 & 4)		
14	Dec 4	No asynchronous material; Witnesses Prep	<u>Mock Trial (2 rooms)</u> Session 1: 12.30-2.30pm (Group 5 & 6) Session 2: 2.45-5.15pm (Group 7 & 8)	Final paper draft due	

Topic Descriptions

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 an 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 many 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. For Law students, we will cover easily accessible learned treatises and forensic standards sources.*

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.*

Forensic science regulation & Daubert. *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.*

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.*

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.*

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.*

In Court: Direct & Cross Examination. *This session will cover the process of preparing questions for both the direct and cross-examination of an expert witness. For Law students, how to prepare and how to question will be covered. For forensic students, understanding how lawyers are trained will provide essential insight into what one can expect in court.*

Cognitive Bias & Forensic Science Ethics. *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. We will also discuss ethics in the forensic science workplace and some instances of how ethics can be compromised.*

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”.*

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 genealogy & databases. *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.*

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

Mock trial. *The final sessions for this course will be a mock trial in which law students will be paired with forensic students. Forensic students will appear as an expert witness and will be examined and cross-examined by their law students.*

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. 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. Undergraduates and Law students are welcome to participate for extra credit. The discussions will take place on Fridays 1.30-2.30pm (after the synchronous session).

Assignments & Assessments

Arts & Sci/Forensic students and law students will have slightly different assignments over the semester. The main difference is that forensic students will have a sequence of writing-focused assignments. 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. **Flip Grid, Start-of-class survey, & choose a type of Forensic Science** – students record a “hello” video via FlipGrid to introduce themselves and why the course interests them. Students take a survey over Canvas that includes a choice of which type of forensic science they will “specialize” in over the semester. Choices include: DNA, toxicology, drug chemistry, fingerprinting, pathology, or fire arms evidence.
2. **Watch “Forensic on Trial”** – this NOVA special is available on YouTube. We will discuss it in class.
3. **CSI exercise & presentation** – students watch an episode of any fictitious forensic television show and prepare two slides: one with the details of the episode and one that addresses at least 5 things within the presentation of forensic science that are incorrect or questionable.
4. **Forensic Science Research Assignment** – forensic students will submit a journal article that addresses as sort of current research in their chosen forensic field; law students submit a resource they could use when questioning their forensic field.
5. **Reaction Essay** – students submit a 1-page, single-spaced reaction to the NPR article on Fingerprinting for Foodstamps.
6. **Short paper outline & Bibliography** – forensic students submit the outline for their short paper and at least 4 annotated sources.
7. **Daubert motion** – law students will produce and submit a Daubert motion
8. **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.
9. **Short paper draft** – forensic students submit a draft of their short paper
10. **Short paper peer review** – forensic students are paired up and peer review their partner’s short paper draft
11. **Watch “Innocence Files” episode 3** – available on Netflix. We will discuss in class.
12. **Expert Witness Statements** – forensic students will prepare an expert report on their area of forensic expertise for an imaginary case. Law students will question them during the mock trail.
13. **Short paper final draft due**
14. **Participation in on-line class sessions/discussions/mock trial**
15. **Just Mercy** – graduate forensic students are required to read this book and participate in weekly discussions. Undergraduates may participate for extra credit.

Evaluation and Grading

Start-of-class survey & choose a type of Forensic Science	5%
CSI exercise & presentation	5%
Forensic Sci Research Assignment	5%
Reaction Essay	5%
Short paper outline & Bibliography	5%
Daubert Outline	5%
Daubert motion	24%
Exam	20%
Short paper draft	10%
Short paper peer review	10%
Short paper final draft due	10%
Expert Witness Statements	10%
Law students' trial advocacy	24%
Class Participation & Attendance (Law)	7%
Class Participation & Attendance (A&S)	15%
<hr/> Total	100 points

Late assignment guidelines

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

If you think you might miss a deadline:

1. Please contact us 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 us whatever you have before the deadline. If we have something from you, no matter how incomplete, the first day's late penalty will be halved.
3. Keep in contact with us 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 for undergraduate Arts & Sciences student since it is considered 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 will 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

Academic Policies

Each student in this course is expected to abide by the [University Code of Academic Integrity](#). 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.

Rutgers University takes academic dishonesty very seriously. By enrolling in this course, you assume responsibility for familiarizing yourself with the Academic Integrity Policy and the possible penalties (including suspension and expulsion) for violating the policy. As per the policy, all suspected violations will be reported to the Office of Community Standards.

Academic dishonesty includes (but is not limited to):

- cheating
- plagiarism
- aiding others in committing a violation or allowing others to use your work
- failure to cite sources correctly
- fabrication
- using another person’s ideas or words without attribution
- re-using a previous assignment
- unauthorized collaboration
- sabotaging another student’s work

If in doubt, please consult the instructor. Please review the Academic Integrity Policy at

<https://deanofstudents.camden.rutgers.edu/sites/deanofstudents/files/Academic%20Integrity%20Policy.pdf>.

Classroom Courtesy

Please try to avoid drifting off to other activities while logged in to our synchronous session. Please turn cell phones off and close other computer applications (like e-mail) that might distract you 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>