

Instructor: Dr. Mark Barash

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Office Hours: Tuesdays & Thursdays: 3:00am to 4:00pm; Wednesdays: 11:00am to

12:00pm; Online (Zoom): by appointment

Class Days/Time: Thursdays 12:00pm-2:30pm

Classroom: HB 207

Canvas Course Website: https://sjsu.instructure.com/courses/1365361 Login using your Tower ID

Card and Password → Courses → FS169

Prerequisites: Senior standing in final semester; Justice Studies or Forensic Science

major; JS 100W and JS 114 with a "C or better"; Department Consent. Note: A grade of "C" or better is required for Justice Studies majors.

FS Library Liaison: Nyles Monday: Nyles.Monday@sjsu.edu

FS Lib Guide: http://libguides.sjsu.edu/content.php?pid=57768&sid=2450175

FS Program Website: http://www.sjsu.edu/justicestudies/degrees/fs-program/

Course Description

This senior seminar course provides an in-depth study of a number of selected issues in forensic science through their analysis and discussion. In particular, students will focus on identifying issues presented in various journal publications, formulate sound arguments using their critical thinking skills, and articulate their conceptualizations of subject matters through group-lead discussions, research papers and digital media project on a relevant topic. Topics to be explored include: understanding capabilities and limitations of the forensic science, sources of potential error and its consequences in forensic and criminal justice context, application of the emerging forensic technologies and associated ethical and legislative considerations, principles and concepts relating to quality in forensic science and other.



Note the following, detailed prerequisites:

- Justice Studies Majors: JS 100W and JS 114 or instructor consent,
- Forensic Science Majors: JS 100W, FS 161, FS 162, Biology 30, CHEM 1A and CHEM 1B
 - o Note- JS 114 is waived as a prerequisite for forensic science majors.
- **Both majors**: senior standing or by instructor consent, graduation application submitted and major form filled out and signed.

Course Learning Objectives (CLO)

Upon successful completion of this course, students will be able to:

- **CLO1** Demonstrate their ability to undertake a critical analysis of contemporary problems relevant to forensic science and justice studies.
- **CLO2** Identify and analyze professional resources for forensic scientists.
- **CLO3** Demonstrate their ability to complete a formal research paper that (a) synthesizes relevant scholarly sources; (b) addresses relevant forensic science or justice topic. (c) reflects professional formatting and writing standards.
- **CLO4** Demonstrate their ability to present scholarly work to an audience of their peers in engaging manner.
- CLO5 Demonstrate their ability to apply scientific (and otherwise rational) forms of reasoning, argumentation, research, and support in forming any particular worldview or position in the pursuit of 'justice' and addressing social problems in our communities/societies.
- **CLO6** Students should read, write, and contribute to discussion at a skilled and capable level that appropriately reflects the cumulating experience of their justice studies major.

Required Texts

Links to required resources will be posted on Canvas. Check the site frequently.



Course Requirements and Assignments

Classroom Protocol

- Students are expected to: attend all class meetings, arrive on time, stay for the duration of the class period, complete all readings and assignments in accordance with the dates on the course schedule.
- Students are responsible for all missed notes, materials and announcements due to absence. You are encouraged to exchange contact information with someone in class just in case.

The use of a laptop, tablet or other mobile devices is strictly limited to learning purposes (e.g. note taking, presentation etc.). Students caught using such items for other non-class purposes may be prohibited from bringing them back to class, and will likely be dismissed from class for the day.

Course Format

This senior seminar is designed with the structure, rigor, and spirit of a graduate level course. In a seminar, students meet regularly to report and discuss an area of research under the guidance of a course coordinator. The coordinator's role in this course is to <u>guide</u> your conversations, steer your thinking in intellectually sound directions, and to evaluate your work. The students should approach this course with the mentality that the group has the burden of educating itself. Since participation is a key element in this class, I would advise not taking this course if you anticipate missing classes.

Students are to conduct additional research on a topic related to the theme of the work assigned on that day and present their findings to the class for 10-15 minutes each. For example, a student may read an article, book chapter, or official report, and discuss its relevance to the readings for the day. In addition, students who will be assigned 'Discussion Leaders' are expected to generate a set of discussion questions that underscore critical themes or issues associated with the assigned readings (5 questions will suffice) and are intended to facilitate the discussion for the day.

Students assigned the readings for the day must discuss with the class: (1) the thesis of the assigned reading, (2) background information on the chosen topic based on the reading materials; (3) additional/outside research directly related to the thesis/main argument/theme of the assigned reading, (4) ethical concerns,



and (5) up to five discussion questions. The additional research that you present to the class must be directly related to the thesis or main argument. You must discover the main argument/thesis/theme of the assigned reading and make a strong connection to what you will be presenting in class.

The mode of instruction for this course is in person with online supplements. Reliable access to a computer and the internet will be required. Copies of course materials will be posted on Canvas as *.pdf files, while some course materials may need to be accessed via internet links. You are responsible for regularly checking your e-mail and Canvas regarding announcements, reminders, and any additional course materials. All written assignments will be also submitted via Canvas, and must be in either Microsoft Word (*.doc or *.docx) or Adobe Acrobat (*.pdf) format. If you do not currently own Microsoft Office, the software (both PC and Mac) is available for free to students: http://its.sjsu.edu/services/software/microsoftstudents/index.html. The Adobe Acrobat Reader is available for free from: https://get.adobe.com/reader/. You can also use other text – processing software to generate these files if you prefer.

Assignments and Grading Policy

The course requirements consist of five assessment tasks:

- 1. Discussion leadership (5%)
- 2. Participation in weekly discussions (5%)
- 3. Two oral presentations during the course (15% each)
- 4. One research paper (30% each)
- 5. Presentation of a research paper (30%)

Total: 100%

There is no final exam for this course.

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally three hours per unit per week) for instruction, preparation/studying, or course related activities, including preparing for class, participating in course



activities, completing assignments, and so on. Other course structures will have equivalent workload expectations as described in the syllabus. More details about student workload can be found in University Policy S12-3 at http://www.sjsu.edu/senate/docs/S12-3.pdf

Assessment tasks 1-3: Oral Presentations, Discussion lead and participation in weekly discussions

Each student will be responsible for offering <u>two</u> in-class **presentations** based on weekly topics

(Assessment task 1). The presentation should be relatively short (between 5 to 10 minutes), but comprehensive and must include the following section:

- 1. Introduction: Description of a specific topic assigned by the instructor, its importance and the primary thesis.
- 2. Literature review: concise and balanced coverage of the discussed topic, based on the relevant literature. This is the main part of your paper, which should provide an objective presentation of various opinions on the disputed topic, in terms of various pros and cons of the current approach, implications of their effectiveness/ineffectiveness, and suggestions about alternative solutions (if any). This critique should pull upon findings in the literature to support the presenter's point of view.
- 3. Conclusions.
- 4. References.

The presentations will be graded based on the level of competency and flow, knowledge of the subject, ability to engage the audience and conclusions. It is highly recommended that students practice their presentations several times (preferably in front of someone who will provide constructive feedback, e.g. not your mom or dad). Following each presentation, the discussion leaders should be prepared to pose questions to the class to facilitate class discussion (Assessment task 2). While the instructor will moderate discourse, students are largely responsible for engaging in inquiry and discussion. The presenters will be required to submit their Power Point (*.ppt) file prior to in-class presentation.

Each presentation will receive a grade ranging from 0-15 points based on the fulfillment of requirements.



Weekly presentations will account for 30% of the final course grade. Please note that make-up presentations will not be allowed, except under extreme circumstances, which can be substantiated (documentation will be required).

The **discussion leaders** will receive a grade ranging from 0-5 points, based on their ability to facilitate the discussion and engage the students (**Assessment task 2**). The students will receive a grade ranging from 0-5 points, based on their **pro-active participation** in the discussion (**Assessment task 3**). Each of these activities will account for 5% of the final course grade.

Presentation tips

Here is some advice to help you with the preparation of your presentation:

- Put a title at the top of each slide that states the slide's main point
- Use large, easy-to-read font (e.g., Arial) throughout
- Font size: 18 point minimum, 24 point recommended, 36 point or larger for a title
- Don't use too much text. Bullet points are generally better than full sentences or paragraphs. Try to avoid reading the slide to the audience.
- Don't forget to include references in your slides
- Use primary colors for the font and background when possible, especially red and blue. Don't use colors which are hard to read (e.g. too bright/dark).
- Speak loudly and clearly. Face forward as much as possible. Try not to rush.
- Practice what you will say about each slide so that you present the essential points as clearly and efficiently as possible.
- Practice your presentation with a timer to make sure that you are at or under 20 minutes.

Assessment task 4: Research paper

This is an individual task. The students will be required to write **one** 10 page paper (not including the cover page or references) analyzing a forensic science – related topic as a requirement for this course. The paper should be written in a 12-point font (e.g. Times New Roman, Arial, etc.), with 1.5 point space lines in a



paragraph. The papers should be submitted via Canvas following Turnitin check at their respective due dates (to be announced).

In their paper, students should include the following:

- 1) Introduction describing the paper's topic and its relevance
- 2) Review of the relevant literature on the issue (minimum of five scholarly sources)
- 3) Critique of the chosen topic from the point of view of their effectiveness and social justice/injustice
- 4) Summary of findings and suggestions for alternative solutions
- 5) Accurate citation of all the references used, according to either CSE or APA formatting requirements

Assistance with CSE formatting style and APA can be found at:

https://writing.wisc.edu/handbook/documentation/doccse/nameyear/ and http://owl.english.purdue.edu/owl/resource/560/01/ respectively.

Using an automatic citation software (e.g. Endnote, Refworks, Mendeley etc.) is strongly encouraged.

Students will be graded on their ability to synthesize course materials and provide a critical analysis of the course content. Students can choose their topic based on their own research interests or from a proposed list. In any case, the topic must be communicated with the instructor. No paper will be accepted without previous communication and approval. The purpose of the paper is not only to test knowledge on a specific topic, but more so to force critical thinking about an aspect of a chosen topic.

Students are prohibited from writing on a topic that has been used for previous course, or currently being used for another course. Any attempt to violate this requirement will constitute a violation of the Academic Integrity policy and result in an automatic "F" for the paper, which ultimately will result in failing the course.

Grading Policy

Written assignments will primarily be graded on the content, relevance, clear annotation and professional layout. However, poor writing mechanics and incorrect formatting will result in a moderate point deduction.



In order to demonstrate comprehension of the course material, one must be able to write in a clear and effective manner. Always carefully proofread your assignments before submitting them.

Due date: submission dates for this assignment will be announced during the semester. Late submissions will not be accepted unless a valid, documented, and verifiable reason is provided.

Assessment task 5: Digital media project

Students will be required to present their research papers (as per task 4) in a form of a digital media (e.g. video, animation, podcast format). This assessment task is about understanding, summarizing and efficient communicating of a forensic science topic.

You will be required to choose a relevant topic (either among those discussed in the class or from a list provided by the course instructor or by choosing your own topic, following approval by instructor) and create a digital media artefact about this topic in a video or audio format. The length of the video/audio should be between 3 to 5 minutes. This file should be uploaded into one of the free online platforms, such as Youtube or Vimeo and a link to the file must be submitted via Canvas prior to its presentation in the class. The due date will be announced in the class.

Digital media training will be provided to you with a lecture on digital media principles covering layout design, color theory, fonts, use of images and basic video techniques. Additional online modules will be available to provide assistance with digital media.

The digital media project will benefit you in various ways such as learning the course content and learning digital media principles to communicate effectively, as well as encouraging creativity. The digital media project is an authentic task that resembles real life scenarios, such as communicating the scientific findings to the jury or a police investigator.

This project however is not about using expensive equipment or technology. It is about learning to tell a story in a succinct, clear and visual manner using digital media principles to ensure the message will be conveyed appropriately. The digital "props" are not to be ignored of course, as they could be very helpful



to deliver your ideas. Nonetheless, your media project will be primarily judged on its content and how well you communicate it to the audience, and less on how "fancy" or "sophisticated" your animations are.

Type: Individual or groupwork work (to be discussed in the class)

Weight: 30%

Due date: this task will be due on the last few weeks of the course (according to the syllabus, with potential adjustments based on students' progress).

Grading criteria:

A marking rubric will be provided to you to understand what you need to achieve. You will be assessed on the content of your project report and application of digital media principles. Assessment criteria include:

- Disciplinary knowledge (35%)
 - Accuracy and completeness of information
- Professional skills (35%)
 - o Understanding and explanation of underlying scientific principles of the topic
- Communication skills (15%)
 - Presentation of information
 - Use of digital media principles (layout design, fonts, color, graphics and video principles)
 to enhance communication of the topic
 - Creativity (how presentation approach enhances topic)
- Enquiry and innovation (15%)
 - o Research using available resources (textbooks, peer-reviewed papers)

Assessment feedback will be provided in the form of marks and comments. Additional information may be sought from the relevant assessor, or the subject coordinator.

Overall assessment of this task will be performed jointly by the students (20% of the total mark) and course coordinator (80% of the total mark), accounting to the 30% of the final course grade.



Extra Credit Opportunities

Extra credit opportunities may be available throughout the semester and may be used to <u>cumulatively</u> augment your final grade up to 5% <u>total</u>. These opportunities will also be announced on Canvas and required documentation would need to be uploaded and/or submitted online. You can choose any of the activities listed below:

- 1. Attend a Forensic Science seminar and write a two-page, double-spaced, typewritten paper that includes a synopsis of the seminar/lecture and your reaction/response. Your paper is due within one week of the event. Successful completion of this assessment task will add 1% to the final grade.
- 2. Complete a short course offered by the National Institute of Justice marked "extra credit" during the Forensic Science module (forensic bio or any other forensic discipline) and submit your certificate of completion by the end of that module. Successful completion of this assessment task will add 3% to the final grade.
- 3. Students can write a research paper about a career in criminalistics that is of interest to the student. The paper will be in either CSE or APA format and contain an introduction, the body of the research, and a conclusion. The length of a paper should be between 2 and 3 standard pages in 1.5 font. The paper must contain in-text citations from at least three sources (preferably peer-reviewed papers). Successful completion of this assessment task will add 2% to the final grade.
- 4. Tour a crime lab and write a 2-page, typed, double-spaced synopsis of the experience. Santa Clara has monthly tours. Successful completion of this assessment task will add 1% to the final grade.
- 5. Read and critique a current journal article from the forensic science disciplines. Discuss its relevance to forensic science and how it contributes to the advancement the field. The paper will be in either CSE or APA format and contain an introduction, the body of research, and a conclusion. The length of a paper should be between 2 and 3 standard pages in 1.5 font. The paper must contain in-text citations from at least three peer-reviewed sources. Successful completion of this assessment task will add 3% to the final grade.

Please note, the maximum cumulative bonus grade you can get is 100, which can be used to adjust your final grade up to 5% maximum. In other words, if you choose both the second and the third bonus



assignment tasks from the above list, you would theoretically improve your final grade by up to 5%. If you complete only the first task, it would improve your grade by 2% and so on.

Overall grading scale for all assignments

<u>Letter Grade</u>	<u>Percent</u>	<u>Letter Grade</u>	<u>Percent</u>	Letter Grade	Percent
A plus (+)	97-100	C plus (+)	77-79.9	F	<60
A	94-96.9	C	74-76.9		
A minus (-)	<u>90-93.9</u>	C minus (-)	<u>70-73.9</u>		
B plus (+)	87-89.9	D plus (+)	67-69.9		
В	84-86.9	D	64-66.9		
B minus (-)	<u>80-83.9</u>	D minus (-)	<u>60-63.9</u>		

Note: A grade of C or better is required for all Justice Studies major and minor coursework, and desirable for students enrolled in the Forensic Science majors and/or minor.

Department of Justice Studies Reading and Writing Philosophy

The Department of Justice Studies is committed to scholarly excellence. Therefore, the Department promotes academic, critical, and creative engagement with language (i.e., reading and writing) throughout its curriculum. A sustained and intensive exploration of language prepares students to think critically and to act meaningfully in interrelated areas of their lives—personal, professional, economic, social, political, ethical, and cultural. Graduates of the Department of Justice Studies leave San José State University prepared to enter a range of careers and for advanced study in a variety of fields; they are prepared to more effectively identify and ameliorate injustice in their personal, professional and civic lives. Indeed, the impact of literacy is evident not only within the span of a specific course, semester, or academic program but also over the span of a lifetime.



University Policies

Per <u>University Policy S16-9</u> (http://www.sjsu.edu/senate/docs/S16-9.pdf), relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on <u>Syllabus Information web page</u> (http://www.sjsu.edu/gup/syllabusinfo), which is hosted by the Office of Undergraduate Education. Make sure to visit this page to review and be aware of these university policies and resources.

Student Resources

Forensic Science Student Group (FSS)

Forensic Science Students is a campus group open to all students interested in forensic science. The group meets biweekly during the semester and offers friendship, forensic science-related activities, networking opportunities, and mentorship. Members of the FSS participate and assist at conferences, CSI camps, guest speaking events, and other extra-curricular activities. FSS Peer Mentors assist forensic science students in navigating the major, understanding requirements and prerequisites, and making wise choices in their college careers. Mentors may also offer limited tutoring, and facilitate educational and professional opportunities. Contact sjsu.fss@gmail.com for more information, or to get an application for membership.

Student Technology Resources

Computer labs for student use are available in the Academic Success Center located on the 1st floor of Clark Hall and on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library. A wide variety of audio-visual equipment is available for student checkout from Media Services located in IRC 112. These items include digital and VHS camcorders, VHS and Beta video players, 16 mm, slide, overhead, DVD, CD, and audiotape players, sound systems, wireless microphones, projection screens and monitors.



Learning Assistance Resource Center

The Learning Assistance Resource Center (LARC) located in Room 600 in the Student Services Center assists students in the development of their full academic potential and motivates them to become self-directed learners. The center provides support services, such as skill assessment, individual or group tutorials, subject advising, learning assistance, summer academic preparation and basic skills development. http://www.sjsu.edu/larc/

SJSU Writing Center

The SJSU Writing Center located in Room 126 in Clark Hall offers a variety of resources to help students become better writers, including one-on-one tutoring sessions and numerous writing workshops. All services are free for SJSU students. http://www.sjsu.edu/writingcenter/

CASA Student Success Center

The Student Success Center in the College of Applied Sciences and Arts (CASA) provides advising for undergraduate students majoring or wanting to major in programs offered in CASA Departments and Schools. All CASA students and students who would like to be in CASA are invited to stop by the Center for general education advising, help with changing majors, academic policy related questions, meeting with peer advisors, and/or attending various regularly scheduled presentations and workshops. If you are looking for academic advice or even tips about how to navigate your way around SJSU, check out the CASA Student Success Center. Location: MacQuarrie Hall (MQH) 533. Contact information: 408.924.2910 Website: http://www.sjsu.edu/casa/ssc/. The CASA Student Success Center also provides study space and laptops for checkout.



FS-169 Senior Seminar, Spring 2020: Tentative Course Schedule

Notes about the course schedule: The order of the discussed topics and their focus might change, according to students' progress. I reserve the right to change the schedule including the due dates, but only in a manner that benefits students (e.g., due dates can only be pushed back, never moved forward). All the required reading materials will be provided on Canvas as either *.pdf copies or weblinks.

Week	Date	Topics, Readings, Assignments, Deadlines	
1	01/23/20	Course introduction	
		Overview of assignments and expectations	
		Reading for today: Syllabus	
2	01/30/01	Survey of forensic science: contemporary technologies	
		Sources of error in forensic science	
3	02/06/20	Brief overview of forensic DNA analysis: emerging technologies	
		Ethical and legal controversies	
4	02/13/20	Topic for reading and discussion: 'Reliability of forensic science'	
5	02/20/20	Topic for reading and discussion: Implications of secondary and tertiary DNA	
		transfer, low – level DNA testing	
6	02/27/20	Topic for reading and discussion: DNA databases	
		Topic for reading and discussion: Familial / partial profile searches	
7	03/05/20	Discussing research paper requirements and digital media presentation	
		Lecture on digital media principals	
		Allocation of a research topic	
8	03/12/20	Topic for reading and discussion: Wrongful convictions and DNA exonerations	
9	03/19/20	Topic for reading and discussion: Forensic molecular phenotyping: ethical and	
		criminal justice issues	
10	03/26/20	Topic for reading and discussion: Forensic genealogy and extended familial	
		searches: ethical and criminal justice issues	
		Brainstorming and writing session	
11	04/02/20	NO Lecture – Spring Recess	
		Submit a draft of your research paper to receive feedback	



12	04/09/20	Topic for reading and discussion: Faking DNA evidence and gene editing:
		ethical and legal concerns.
		Peer – review of research papers and media files (group activity)
13	04/16/20	Topic for reading and discussion: Behavioral genetics in criminal justice
		Personal feedback from instructor on your research paper draft
14	04/23/20	Course summary and discussion
		Due date for your research paper submission
15	04/30/20	Working on the digital media presentation
16	05/07/20	Digital media presentations and discussions
Main	05/13/20	Digital media presentations and discussions
exam/alternative	9:45 am –	
activity	12:00 pm	