

FS-169 Sec 01
Forensic Science Senior Seminar: Studies in Contemporary FS Issues
Spring 2023

Instructor:	Dr. Mark Barash
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Office Hours:	Thr 3pm-6pm;
Class Days/Time:	Wednesday 3:00pm–5:45pm; CH 303A
Canvas Course:	https://sjsu.instructure.com/courses/
Prerequisites:	Senior standing in a final semester; Justice Studies or Forensic Science major; JS 100W and JS 114 with a "C or better"; Department consent.
FS Library Liaison:	Nyle Monday: Nyle.Monday@sjsu.edu
FS Lib Guide:	http://libguides.sjsu.edu/content.php?pid=57768&sid=2450175

If you need course adaptations or accommodations because of a disability, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. [Presidential Directive 97-03](#) requires that students with disabilities requesting accommodations must register with [AEC](#) to establish a record of their disability.

Course Description

This capstone 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 forensic science, identifying the sources of potential error and its consequences in the 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. Topics covering development of professional skills, such as writing resumes and CV, networking, job search and preparing for an interview will be also discussed.

Note the following prerequisites:

- **Justice Studies Majors:** JS 100W and JS 114 or instructor consent,
- **Forensic Science Majors:** FS/JS 100W, FS 161, FS 162.
- **Both majors:** senior standing or by instructor consent, graduation application submitted and major form filled out and signed.

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Course Goals and Student Learning Objectives (CLO)

The overarching goal of this course is to encourage students to develop a self-directed and proactive learning attitude and essentially transform the empirical knowledge they acquire, into professional expertise and autonomy. These qualities would help students becoming more confident and independent individuals, which would positively impact their career and life in general.

Course Learning Objectives (CLO)

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

- **CLO1** Undertake a critical analysis of contemporary problems relevant to forensic science.
- **CLO2** Integrate cumulating knowledge on various forensic science controversies by reviewing relevant scholarly sources and presenting the findings in various forms of presentations and a formal research paper.
- **CLO3** 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.
- **CLO4** Prepare for a professional career in forensic science by creating a clear and appealing resume, developing communication skills and identifying resources for job search and professional development.

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 guide your conversations, steer your thinking in intellectually sound directions, and to evaluate your work. The students should approach this course with the mentality of self-starters who know how to manage their time effectively and have the motivation of educating themselves independently. **Since participation is a key element in this class, I would advise not taking this course if you anticipate missing classes.**

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 preparation, studying, completing assignments and other course related activities. More details about student workload can be found in [University Policy S16-9](#).

Students are required to have an electronic device (laptop, desktop or tablet). SJSU has a [free equipment loan program](#) available for students. Students are responsible for ensuring that they have access to reliable Wi-Fi during class. If students are unable to have reliable Wi-Fi, they must inform the instructor as soon as possible to determine an alternative. This course will require access to Microsoft Office, specifically Word and PowerPoint. If you do not currently own Microsoft Office, the software (both PC and Mac) is [available for free to students](#). If you have technical difficulties at any point please contact [Technical Support for Canvas](#) by [Email](#) or Phone: (408) 924-2337.

Course Requirements and Assignments

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Required Texts

- There is no dedicated textbook for this course.
- There are however other multiple (free-access) resources required for this course, such as peer-reviewed papers, media articles and web sites. Links to required resources will be posted in Canvas. Check the site frequently.

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 your classmates and use the Canvas resources to collaborate and keep in touch.
- Due to the nature of the class and time limitations, no late submissions/resubmissions for the in-class presentation would be possible.

Please be advised that students are prohibited from recording class activities (including class lectures, office hours, advising sessions, etc.), distributing class recordings, or posting class recordings. Materials created by the instructor for the course (syllabi, lectures and lecture notes, presentations, etc.) are copyrighted by the instructor. This university policy (S12-7) is in place to protect the privacy of students in the course, as well as to maintain academic integrity through reducing the instances of cheating. Students who record, distribute, or post these materials will be referred to the Student Conduct and Ethical Development office. Unauthorized recording may violate university and state law.

Assignments addressing respective learning objectives

The course requirements consist of five assessment tasks:

1. Reading notes and reading quizzes (10%)
2. Propose/choose a capstone research topic that addresses a problem discussed in class and in the readings. Make two presentations on your capstone research project (20% total): CLOs 1, 2, 3.
3. Summarise the results of your capstone project in a final research paper (20%) and peer-review your classmates' papers (5%): CLOs 1, 2, 3.
4. Participate in discussions and facilitate the discourse in class/online (10%): CLOs 1, 2
5. Create a resume and cover letter, identify jobsites and resources for networking (7%) and provide feedback on your classmates' resumes (3%); Practice a job interview using "Big Interview" tool and write an essay about your experience (5%): CLO 4.
6. Form a group of 2-3 students to conduct research on one of the proposed topics and create a digital media project in a form of a short video clip, podcast or blended media. (20%): CLOs 1,2,3.

Details and guidelines on all the assignments will be provided in class.

Note: The digital media project is considered a final exam for this course (instead of the "traditional" final exam), as detailed below.

Please check Canvas for a detailed information about assignments and grading rubrics

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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; 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. Include more illustrations rather than dry text. Try to avoid reading the slide to the audience.
- Don't forget to include references, either as a footnote on each slide or on the final slide.
- Use primary colors for the font and background when possible. 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 under 15 minutes.

Assessment task 5: Digital media project

This is a group task. This assessment task is about understanding various scientific concepts covered in this course, summarizing the material in a clear and succinct way and efficient communication of a forensic science topic.

Students will be required to allocate a topic from a list provided by the instructor or propose their own topic of interest related to a forensic science controversy/dilemma. The students will conduct comprehensive research on the proposed topic by reviewing recent scholarly sources. The outcome of the research will be presented in the form of digital media such as a short video clip, animation, podcast or a blended-media artefact, according to the basic digital media principles discussed in the class. The length of the media file should be between 3 to 5 minutes. The file must be submitted through Canvas prior to its presentation in 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 resources will be available to help with the digital media creation.

You will need to contact your classmates and create a team of 3-4 students. Each team will have its own Canvas-integrated homepage where the team members can collaborate on their project (more details to be discussed in class).

The digital media project will benefit you in various ways such as studying the course content in a non-trivial and engaging form, learning valuable software tools and incorporating digital media principles for more effective learning, communication and engagement, as well as encouraging creativity. The digital media project is an authentic task that resembles real life scenarios, which you will likely experience in your professional career such as communicating scientific findings to a jury or a police investigator.

This project is not about using expensive equipment or sophisticated technology. It is about learning to tell a story in a clear, succinct and visually appealing manner, using digital media principles to ensure the message will be conveyed efficiently. 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.

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Remember, this is a group task that requires proactive engagement and effective teamwork. At the end of your project, each student will have to provide a brief feedback on group's dynamics including assessment of each member contribution. Your peers' feedback will be incorporated in the final grade (e.g. a team member who hasn't contributed to the task may receive an appropriate mark for this assignment, such as 0).

Due date: This task will be due on the last week of the course, with potential adjustments based on students' progress. Further details will be announced on Canvas.

Grading criteria

You will be assessed on the scientific content of your presentation and application of the digital media principles. The presentations will be primarily graded based on the level of competency in the subject presented, ability to engage the audience and your critical review of the topic. Detailed feedback will be provided in the form of marks and comments. Please check Canvas for the detailed grading criteria.

Overall assessment of this task will be performed jointly by students (30% of the total mark) and course instructor (70% of the total mark), accounting together for 25% of the final course grade.

Extra Credit Opportunities

Extra credit opportunities may be available throughout the semester and may be used to cumulatively augment your final grade up to 5% total. These opportunities will be announced in class and would need to be submitted in Canvas.

Late Work and Make Ups

Please manage your time responsibly with the knowledge that late work will generally not be accepted. If you know ahead of time that you will be offline when an assignment is due, complete it early. Make-ups will generally not be given unless extraordinary, documented circumstances exist.

If you have a genuine problem, please contact me at the earliest convenience and I will gladly do my best to help you. If you are in any doubt about the requirements of an assignment, or due dates/times, please re-read the assignment and/or schedule. If your question is still unanswered, contact me for clarification.

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Grading scale for all assignments

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

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.**

University Policies

Office of Graduate and Undergraduate Programs maintains university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. You may find all syllabus related University Policies and resources information listed on GUP's Syllabus Information web page at <http://www.sjsu.edu/gup/syllabusinfo/>

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.

Academic Integrity

The University Academic Integrity Policy S07-2 at <http://www.sjsu.edu/senate/docs/S07-2.pdf> requires you to be honest in all your academic course work. **Instances of academic dishonesty will not be tolerated.** Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. As such, cheating and

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plagiarism will result in a failing grade and sanctions by the University. Additional information is available at the Student Conduct and Ethical Development website at <http://www.sjsu.edu/studentconduct/>.

Student Resources

Forensic Science Student Group (FSS)

[SJSU 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 extracurricular 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

A wide variety of audio-visual equipment is available for student loaning from Media Services located in IRC 112. Please check [online](#) for additional information.

ACCESS Success Center

The Academic Counseling Center for Excellence in the Social Sciences (ACCESS) provides General Education advising for undergraduate students majoring or intending to major in any of the departments in the College of Social Sciences (CoSS). ACCESS Academic Advisors are committed to helping you develop a clear path to graduation and supporting your academic success. You can schedule an appointment and find more information at sjsu.edu/access.

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/>

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Tentative Course Schedule

Notes about course schedule: The order of the discussed topics and their focus may change according to students' progress and/or any unforeseen circumstances. 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).

Week	Date	Topics	Assignments & Deadlines
1	Jan 25	Course introduction. Overview of the course structure, assignments and expectations, form groups for the DMP assignment.	Read the syllabus and explore Canvas site.
2	Feb 1	Crash course in forensic science. Discussion of readings.	Read NAS report (“Strengthening Forensic Science in the US”) up to page 183. Watch “The Real CSI”. Check Canvas for additional materials.
3	Feb 8	Crash course in forensic DNA analysis, genetic engineering, artificial intelligence and machine learning applications in forensic science and other topics. Discussion of readings.	Read NAS report (pages 183-237). Read PCAST report (pages 21-65; 151-153). Check Canvas for additional materials. Quiz - NAS report (online). Choose a research topic and formulate questions for your capstone project (presentation and research paper). Make a plan and start exploring the literature.
4	Feb 15	Lecture on digital media principals. Discussing DMP requirements and other assignments. Academic writing workshop - Un-Blurring Plagiarism and Paraphrasing	Read PCAST report (pages 67-118; 128-130). Check Canvas for additional materials. Quiz - PCAST report (online).
5	Feb 22	Academic writing workshop - Creating Easy-to-Read Sentences and Paragraphs	Quiz - FS crash course (online). Choose a research topic for your digital media project (DMP).
6	March 1	Presentation #1 of the capstone research project: Introduction/background, research questions, hypothesis and methods.	Students presentations and discussion. Check Canvas.
7	March 8	Presentation #1 of the capstone research project: Introduction /background, research questions, hypothesis and methods.	Students presentations and discussion. Check Canvas. Submit your resume and cover letter assignment for your peers' feedback.

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8	March 15	Career prep workshop Work on your portfolio Individual meetings with instructor to discuss your progress on the capstone project	Check Canvas. Submit your resume and cover letter for your peers' feedback.
9	March 22	Guest speakers session	Check Canvas. Due date for your resume and cover letter assignment.
10	March 29	Spring Recess	
11	April 5	Guest speakers session	Check Canvas. Submit a storyboard of your DMP.
12	April 12	Guest speakers session	Continue working on the digital media presentation. Submit the final draft of your research paper for peer feedback.
13	April 19	Group meetings with instructor to discuss your progress on the DMP. Guest speakers session	Show a clear plan for your DMP assignment: a list of things you've done and what remains to be done. Continue working on your DMP.
14	April 26	Presentation of the capstone projects results and discussion.	Submit a final draft of your DMP for a feedback from the instructor.
15	May 3	Presentation of the capstone projects results and discussion.	Due date for your research paper.
16	May 10	Presentation of the capstone projects results and discussion. Course summary + Discussion on what's next: Internships, Jobs, Grad School?	Due date for your digital media project. Extra credit assignments due.
Main exam/alternative activity	Thursday, May 18 th , 12:15-2:30PM	Digital media presentations and discussion.	Enjoy the holidays!