



## Course Description

This survey course introduces students to the profession of forensic science. Topics include the history and sub-disciplines of forensic science, and the scientific methods and analytical instrumentation used for the recognition, documentation, collection, preservation, and analysis of physical evidence as it relates with criminal investigations. Note: FS 11 is required for the successful completion of the FS biology and chemistry majors, as well as the FS minor. It is recommended for JS majors. However, it is open to any student with a general interest in subject.

## Course Goals and Student Learning Objectives (CLO)

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

- x **CLO1** Define forensic science as it relates to criminal and civil contexts, as well as key concepts and principles such as the scientific method, the fourth amendment, chain of custody, class versus individual evidence, probative value, and Locard's exchange principle.
- x **CLO2** Understand the roles of forensic and investigative personnel, their separate duties and how they work together.
- x **CLO3** Summarize the history of DNA profiling, principles of genetics concerning DNA, Mendelian inheritance, STRs, alleles, genotypic and phenotypic expressions of genes, and PCR.
- x **CLO4** Display foundational knowledge in the history of forensic science, the structure and organization of crime labs, the analytical processes and procedures used, disciplines and contributing sciences of forensic science, and the types of evidence encountered.
- x **CLO5** Articulate a realistic perspective of the field of forensic science, the nature of the work, its limits, challenges, and successes.

## Required Texts

### Textbooks

- x James, S., Nordby, J., & Bell, S. (2014). *Forensic Science: An Introduction to Scientific and Investigative Techniques*, 4/E. Boca Raton, FL: CRC Press/Taylor & Francis ISBN 13: 978-1439853832. The textbook is available for purchase in hard copy at the bookstore or can be accessed for free online at <https://sjsu.primo.hosted.exlibrisgroup.com/primo>



iv) References

2.5. The papers will be graded based on the level of competency and flow, knowledge of the subject, ability to engage the audience and conclusions.

**3. Final digital media presentation (30%): group task; Overall assessment of this project 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.**

3.1. This task would require coordinated work of between 2 to 4 students working together. You will be required to choose a relevant topic (either based on your literature review ~~or~~ <sup>as</sup> provided by the course coordinator or by choosing your own topic, following approval by the coordinator) and create a digital media artefact about this topic in a video format. The length of the video should be between 3 to 5 minutes. This ~~file~~ <sup>video</sup> 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.

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

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

3.4. This project however is not about using expensive equipment or technology. It is about learning to tell a story in a ~~succinct~~ <sup>succinct</sup>, clear and visual ~~manner~~ <sup>manner</sup> using digital media principles to ensure the message will be conveyed appropriately. The ~~digital~~ <sup>digital</sup> papers are not to be ignored of course, as they could be very helpful to ~~deliver~~ <sup>deliver</sup> your ideas. Nonetheless, your media project will be primarily judged on its content and how well you ~~communicate~~ <sup>communicate</sup> it to the audience, and less on ~~how~~ <sup>how</sup> "fancy" or "sophisticated" ~~your~~ <sup>your</sup> animations are.

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~~ <sup>on</sup>. Other course structures will have equivalent workload



**Overall grading scale for all assignments**

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

~~FS-11 Survey Forensic Science, Fall, 2019~~

The use of 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-

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 provides support services for students in all disciplines. The center is located in the Student Center, Room 100, on the second floor. For more information, please contact the center at (415) 939-2100 or visit our website at <http://www.sjsu.edu/writingcenter/>.





