

**San José State University/College of Social Sciences  
Department of Justice Studies/Forensic Science Program  
FS 163, Fingerprint Science, CRN 49900 & 49901, Fall 2020**

<b>Instructor:</b>	Mary Juno
<b>Office Location:</b>	Health Building 127
<b>Email:</b>	mary.juno@sjsu.edu
<b>Office Hours:</b>	Wednesdays, 10-12 on Zoom
<b>Class Days/Time:</b>	Tuesdays and Thursdays, 12-2 on Zoom
<b>Prerequisites:</b>	Upper-Division Standing, FS 11 (FS majors/minors), JS 10 (JS majors/minors)
<b>Library Liaison:</b>	Nyle Monday <a href="mailto:nyle.monday@sjsu.edu">nyle.monday@sjsu.edu</a>
<b>FS/JS Lib Guide:</b>	<a href="http://libguides.sjsu.edu/c.php?g=230074&amp;p=1526987">http://libguides.sjsu.edu/c.php?g=230074&amp;p=1526987</a>

### **Course Catalogue Description**

History and use of fingerprints in criminal identification. Topics include the scientific basis for fingerprint identification, anatomy of friction ridge skin, pattern classification, minutiae marking, the Henry System, AFIS and CAL-ID, court presentation of fingerprint evidence, and causes and sources of error.

FS 163 is an elective in the FS major and minor. The course is recommended for anyone who plans to pursue a career in investigations or latent fingerprint identification.

### **Course Format**

In the interest of safety (due to COVID-19), this class has been moved online for Fall 2020. Instead of meeting in person, we will meet on Zoom on the same scheduled days/times: Tuesdays and Thursdays from 12:00-2:00. You will find Zoom login information on our Canvas course.

### **Student Learning Objectives**

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

**LO1** Apply knowledge of sequential fingerprint development techniques for porous and non-porous surfaces.

**LO2** Interpret fingerprint patterns correctly and classify them using the Henry system, National Crime Information Center system, and the Integrated Automated Fingerprint Identification System.

**LO3** Articulate the underlying principles of identification from FRS and the scientific basis for fingerprint

identification.

**LO4** Create a fingerprint comparison exhibit suitable for court presentation, and articulate the ACE-V process and the underlying scientific principles of fingerprint identification.

**LO5** Evaluate causes of error in fingerprint comparisons, including cognitive bias and subjectivity. bias and subjectivity.

## Required Textbook & Materials

1. [The Fingerprint Sourcebook](https://www.ncjrs.gov/pdffiles1/nij/225320.pdf) <https://www.ncjrs.gov/pdffiles1/nij/225320.pdf>  
Is published by the National Institute of Justice. Available as a *free* pdf or in printed form (if you prefer) from [various sources](#) for \$15-30. Additional required readings will be posted on Canvas.
2. [Latent Print Patrol Kit](#) (\$35) or [Value Kit](#) (\$23)
3. [Loupe](#) (\$14), [Ink Pad](#) (\$8), [Ridge Counter](#) (\$12.50)

## Assignments

1. Practical Exercises (35%) These will include locating type lines and deltas, identifying patterns, ridge counting and tracing, recording fingerprints on ten-print cards, classification systems, ACE-V, matching partial prints, palm prints, and latent print development. Details of format and grading will be provided with each exercise. (LO1 & 2)
2. Exams and Quizzes (35%) Periodic quizzes on readings and lectures, one midterm and one final exam. (LO1 – LO4)
3. Presentation (20%) Each student will conduct a mock case as a latent print examiner, compare latent prints to a set of ten-print cards, and create a professional court exhibit of a positive identification. Students will defend the identification in a mock court exercise. (LO3 & 4)
4. Discussion Board (10%) Students will respond substantively to discussion prompts and to classmates on various fingerprint-related topics.

*All assignments are graded based on adherence to directions, thoroughness, thoughtfulness, effort, accuracy, clarity, and logic.*

## Grading Scale for All Assignments

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

## Online Class Policies and Protocol

- In Zoom class sessions, I will initially “mute all.” This is to limit the dog-barking, child-yelling, horn-honking, microphone-bumping noises in the backgrounds of all our lives! Please raise your hand to ask a question (hand raising is a Zoom feature). I will call on you and you can unmute yourself. Alternatively, you can type questions in the chat box.
- Please be respectful of each other in Zoom class (live) and in writing on the discussion board. Absolutely no racist, sexist, homophobic, or other offensive or discriminating language or imagery will be tolerated.
- Plagiarized work will result in a 0 grade on the assignment and will be reported to the Office of Student Conduct. See below for more information on academic integrity.
- Late work may be submitted for reduced credit, -10% for each week that it is late.
- Make-ups for exams and quizzes will generally not be permitted. Please set reminders so that you do not miss them.

## University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>

Important dates this semester: <https://www.sjsu.edu/registrar/calendar/Fall-2020.php>

## Tips for Online Learning

- If you are new to Canvas, please visit the Canvas Guide for Students: [https://www.sjsu.edu/ecampus/teaching-tools/canvas/student\\_resources/index.html](https://www.sjsu.edu/ecampus/teaching-tools/canvas/student_resources/index.html)
- Download the Canvas mobile app to your smartphone so that you will have access to the course if you are away from a computer
- Login to class every other day so that you do not miss important announcements and assignment deadlines, and set reminders on your phone
- Bookmark frequently visited course sites and resources so that you can revisit them to study for tests

## Academic Integrity

The purpose of assignments is to provide a useful learning experience and allow students to demonstrate their knowledge and skills. Dishonesty damages the learning environment, and is disrespectful towards one's classmates, one's instructor, and oneself. Further, it is prohibited at SJSU. Honesty and responsibility are essential life skills, and are required in most professions... forensic science and criminal justice in particular!

Plagiarism means presenting someone else's work, words, or ideas *as if* they were your own. Plagiarism is cheating. Likewise, copying a classmate's answers from worksheets, exams, quizzes, etc., is also cheating. When completing assignments, don't copy word-for-word from the source you're consulting. Instead, **summarize the main points or basic ideas in your own (different) words and phrasing**. Then, give credit to the source for the underlying idea or information. If you need to use someone's specific wording, put the

words in quotation marks and state the source. If you are not sure whether your work would be considered plagiarism, please discuss it with me in office hours -- BEFORE it is due.

Academic dishonesty is a serious offense, and incidents will be reported to the Office of Student Conduct. Don't jeopardize your education, or damage your academic reputation and your self-esteem by cheating or plagiarizing on any assignments. Work hard, and do your best.

## **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](mailto:sjsu.fss@gmail.com) for more information, or to get an application for membership.

## **About the Instructor**

Juno earned an MSc in Forensic Science from the University of Strathclyde in Glasgow, Scotland, and a BA in Biological Anthropology from San Francisco State University. Juno worked for many years as a CSI at the Oakland Police Department where she processed hundreds of major crime scenes. She coordinates Forensic Science Minor and teaches FS and JS courses at SJSU. She also teaches at CCSF and SFSU.

## **How to Contact Me**

- Email: Canvas Inbox (I will respond within 48 hours, M-F)
- Post a question on the Q&A Board (for questions about the course material)
- Zoom Office Hours: Wednesdays 10-12

**FS 163 Fingerprints Fall 2020 Course Schedule (subject to change with notice)**

<b>Week</b>	<b>Date</b>	<b>In-Class Topics</b>	<b>Due</b>	<b>Readings, Assignments</b>
1	8/20	Introduction, Course Overview, History of FP, FRS Structure and Formation		Contribute to Google slideshow, Icebreaker discussions Read FP Sourcebook Ch 1 & 4 <a href="#">FSS: Fingerprints</a> , <a href="#">Capturing Legible FP</a> , Lab: Rolling Ten Prints
2	8/25-27	Fingerprint Pattern Overview Patterns: Loops & Ridge Counts	Ten Print Cards	Read FP Sourcebook Ch 2 & 3 Complete pattern worksheets
3	9/1-3	Patterns: Loops, continued Whorls & Ridge Values	Worksheets	Read FP Sourcebook Ch 5 & 6 Complete pattern worksheets
4	9/8-10	Patterns: Whorls, continued Arches	Worksheets	Complete pattern worksheets
5	9/15-17	Pattern Wrap Up, Pattern Quiz Begin Henry Classification Lab	Worksheets	Complete Henry worksheets Canvas discussions
6	9/22-24	Henry Classification System, cont.		Complete Henry worksheets
7	9/29-10/1	NCIC, IAFIS Classification Systems	Worksheets	Complete Classification worksheets
8	10/6-8	Classification Wrap Up & Quiz	Worksheets	Study for Midterm
		<a href="#">Midterm Exam</a>		
9	10/13-15	Methods of Developing Latent Prints Lab: Lifting and Evaluating Latent Prints		<a href="#">FBI Latent Print Guide</a> Read FP Sourcebook Ch 7, 10 & 11 Complete lifts and evaluations
10	10/20-22	Scientific Basis for FP Examination, Levels of Detail, Examination Process: ACE-V, Lab: Minutiae Marking	Lifts and Evals	Read FP Sourcebook Ch 9 & 14, Article: Scientific Methodology and the Friction Ridge Identification Process Complete Minutiae worksheets
11	10/27-29	Error: Subjectivity and Cognitive Bias Human Factors, Mayfield Case ACE-V, Matching Partial	Worksheets	Read FP Sourcebook Ch 12, Mayfield Case Discussion, Article: Confirmation Bias, Article: Subjectivity: The Misused Word, Complete Matching Worksheets
12	11/3-5	Latent Prints & ACE-V Quiz Courtroom Presentation of FP Evidence, Expert Testimony, Defense Challenges	Worksheets	FP Sourcebook Ch 13 & 15 Article: Defense Challenge to FP Complete case work matches
13	11/10-12	Group work on cases	Case work matches	Prep Court Exhibit, Questions for Witnesses
14	11/17-19	Mock Court Session	Court Exhibit & List of Defense Questions	
15	11/24-26	No Class Meetings: Happy Thanksgiving!		Read FP Sourcebook Ch 6
16	12/1-3	Palms and Feet Computer Systems: Livescan, AFIS, IAFIS, APIS, Lights Out, Final		Complete worksheets Study for Final
	FINAL	<a href="#">Wednesday 12/9 1215-1430</a>		Have a great semester break!