

**San José State University/College of Social Sciences
Department of Justice Studies/Forensic Science Program
FS 163, Fingerprint Science, CRN 50427 & 50428, Fall 2021**

Instructor:	Mary Juno
Office Location:	Health Building 127
Email:	mary.juno@sjsu.edu
Office Hours:	Wednesdays, 10-12 on Zoom (see link on Canvas)
Class Days/Time:	Tuesdays 1530-1720 on Zoom; Thursdays 1530-1720 on campus, HB 207 (see schedule for on-campus dates)
Prerequisites:	Upper-Division Standing, FS 11 (for FS majors/minors), JS 10 (for JS majors/minors)
Library Liaison:	Nyle Monday nyle.monday@sjsu.edu
FS/JS Lib Guide:	http://libguides.sjsu.edu/c.php?g=230074&p=1526987

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

This class is scheduled as a hybrid course, which means it has both online meetings and on campus meetings. On Tuesdays from 3:30-5:20pm, we will meet synchronously for lecture on Zoom; on Thursdays at the same time, we will meet either on Zoom OR in HB 207 to complete hands-on lab activities. See schedule for dates of on-campus meetings.

Zoom Class

Link: <https://sjsu.zoom.us/j/84355655544?pwd=cGluYXc2VUZDR0JkNGdVbm9CMnZ2dz09>

Password: FS163

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.
2. [Loupe](#) (\$14), [Ridge Counter](#) (\$12.50)
3. Additional links to required readings will be posted on Canvas.

Assignment Groups and Weights

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, foot prints, and latent print development. (LO1 & 2)
2. Exams and Quizzes (35%) Periodic quizzes on readings and lectures, one midterm and one final exam. (LO1 – LO4)
3. Presentation of Evidence (15%) 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. Presentation of Mini Research/Group Project (10%) Students will research a topic together with their group, create a PowerPoint, and present the information in class. Details of topics, content, format, and grading will be distributed.
5. Discussion Questions (5%) Students will respond substantively to discussions (usually on Canvas).

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

Final Grade Scale

Grade	Percentage
<i>A plus</i>	98 to 100%
<i>A</i>	93 to 97.99%
<i>A minus</i>	90 to 92.99%
<i>B plus</i>	88 to 89.99 %
<i>B</i>	83 to 87.99%
<i>B minus</i>	80 to 82.99%
<i>C plus</i>	78 to 79.99%
<i>C</i>	73 to 77.99%
<i>C minus</i>	70 to 72.99%
<i>D plus</i>	68 to 69.99%
<i>D</i>	63 to 67.99%
<i>D minus</i>	60 to 62.99%

Class and Grading Policies

- 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 **within 2 weeks of the original due date**, -10% for each week that it is late. Late work goes to the *bottom* of the grading pile and may not be evaluated until the end of the semester.

- Make-ups for exams and quizzes will generally not be permitted unless extraordinary circumstances exist (you may be asked for documentation of those circumstances). Please set reminders so that you do not miss exams and quizzes!
- Please read and follow the directions of each assignment. Students will not be permitted to resubmit work if directions were not followed the first time.

Academic Integrity

Students are expected to pursue their studies with honesty and integrity. When students have a person other than themselves take a test or complete an assignment; cut and paste writing from a source into their paper without giving proper credit; accept, buy, or copy the work of another; share or sell their own work; lie, cheat, or otherwise misrepresent their work product, they have committed the serious offense of *academic dishonesty*. If you cheat, copy, or misrepresent your work in this class in any way, including citation “errors,” you will receive a 0 on the assignment and the incident will be reported to the Office of Student Conduct. **You are expected, on all assignments, to do your own thinking and writing, turn in your best original work, and cite all sources you consult. No exceptions.**

Technology Requirements for Online Classes

Students are required to have an electronic device (laptop, desktop or tablet) with a camera and built-in microphone. SJSU has a free equipment loan program available for students (<https://www.sjsu.edu/learnanywhere/equipment/index.php>). 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. See Learn Anywhere website for current Wi-Fi options on campus. Unless otherwise requested, all assignments **must** be submitted via assignment links on Canvas.

Use of Camera in Class

You are encouraged (not required) to turn on your camera during class discussion/lecture. Whether your camera is on or off, you are required to participate in class discussions and group projects. Feel free to contact me if you have questions or concerns regarding this matter.

Zoom Classroom Etiquette

- **Mute Your Microphone:** To help keep background noise to a minimum, make sure you mute your microphone when you are not speaking.
- **Be Mindful of Background Noise:** Find a quiet place to “attend” class, to the greatest extent possible.
 - Avoid video setups where people may be walking behind you, people talking/making noise, etc.
 - Avoid activities that could create additional noise, such as shuffling papers, listening to music in the background, etc.
- **Position Your Camera Properly:** Be sure your webcam is in a stable position and focused at eye level.
- **Limit Your Distractions/Avoid Multitasking:** You can make it easier to focus in class by turning off notifications, closing or minimizing running apps, and putting your smartphone away (unless of course you are using it to access Zoom class).
- **Use Appropriate Virtual Backgrounds:** If using a virtual background, it should be appropriate and professional and should NOT suggest or include content that is objectively offensive or demeaning.

Recording Zoom Classes

I do not intend to record class sessions. If you miss class, please get notes from a classmate, just like you would for a regular on campus class. If I need to record a particular session, I will let you know in advance so you can turn off your camera and other identifying information if you choose to. **Students are prohibited from recording class activities** (including Zoom class lectures and in person lectures, office hours, advising sessions, etc.), distributing recordings, or posting 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. It is the responsibility of students that require special accommodations or assistive technology due to a disability to notify the instructor.

Canvas Course Page and E-mail

Course materials such as syllabus, handouts, notes, assignment instructions, etc. can be found on Canvas at <http://sjsu.instructure.com>. You are responsible for regularly checking with the messaging system through MySJSU on [Spartan App Portal http://one.sjsu.edu](http://one.sjsu.edu) to learn of any updates. For help using Canvas, please visit the Resource page at http://www.sjsu.edu/ecampus/teaching-tools/canvas/student_resources. Some course materials will be posted in Adobe PDF format; if you choose to download them, you will need Adobe Reader to view the documents. There is no cost to download Adobe Reader (<http://www.sjsu.edu/ecampus/teaching-tools/adobe/students/index.html>).

Tips for Success

- 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 frequently 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.
- Get in contact with your groupmates early in the semester!

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/>

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.

Themis: Research Journal of Justice Studies and Forensic Science

Themis is a student-run journal that publishes original SJSU student papers on a wide range of justice- and forensic science-related topics. Themis runs as a 3-unit class every spring, publishing one volume annually in May in hardcopy and is hosted [online at Scholarworks](#). Researchers the world over have downloaded and

cited our students. For more information, please see: <https://www.sjsu.edu/justicestudies/our-department/publications/themis/index.html> Contact mary.juno@sjsu.edu to join Themis (JS 182) as an associate editor, and/or to submit an original paper for consideration in our next volume (deadline February 14).

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. At SJSU, she is the faculty advisor for *Themis: Journal of Justice Studies and Forensic Science*, coordinates the Forensic Studies Minor, and teaches FS and JS courses. She also teaches at CCSF and SFSU.

How to Contact Me

- Email: mary.juno@sjsu.edu or Canvas Inbox (I will respond within 48 hours, M-F)
- Zoom Office Hours: Wednesdays 10am-12pm (link on Canvas)

FS 163 Fingerprints Fall 2021 Course Schedule

*The instructor reserves the right to alter this schedule during the semester. Highlighted dates are on-campus meetings. Logging into Canvas multiple times a week will ensure that you are abreast of any changes that are made.

Week	Date	In-Class Topics	Due	Readings, Assignments due next week
1	8/19	Introduction & Course Overview, History of FP, FRS Structure and Formation, Pattern Overview		Read FP Sourcebook Ch 1,2&3 FSS: Fingerprints
2	8/24 8/26	Deltas, Typelines, Loop Cores, Ridge Counts		Read FP Sourcebook Pattern worksheets
3	8/31 9/2	Whorls & Ridge Values Whorls (continued), Arches	Worksheets	Read FP Sourcebook Ch 5 Pattern worksheets
4	9/7 9/9	Pattern Wrap Up, Pattern Quiz Introduction to Henry Classification	Worksheets	Pattern worksheets Henry worksheets
5	9/14 9/16	Henry Classification, continued NCIC, IAFIS Classification Systems	Worksheets	Classification worksheets Canvas discussions Read FP Sourcebook Ch 4 Capturing Legible FP
6	9/21 9/23	Classification and Pattern Review Lab: Rolling Ten Prints	Worksheets	Classification worksheets Study for Midterm Read FP Sourcebook Ch 6
Midterm Exam (on Canvas)				
7	9/28 9/30	Small Group Presentations Topics A&B		FBI Latent Print Guide Read FP Sourcebook Ch 7, 10 & 11
8	10/5 10/7	Methods of Developing Latent Prints Lab: Developing, Lifting and Evaluating Latent Prints		Complete lifts and evaluations
9	10/12 10/14	Scientific Basis for FP Examination, Identification/Individuation of Prints Levels of Detail, ACE-V Lab: Minutiae Marking	Lifts and Evals	Read FP Sourcebook Ch 9 & 14, Article: Scientific Methodology and the Friction Ridge Identification Process Article: Defense Challenges Complete Minutiae worksheets
10	10/19 10/21	Matching Partial Prints, Overview of Court Case Courtroom Presentation of FP Evidence, Expert Testimony, Defense Challenges	Worksheets	Canvas discussions Read FP Sourcebook Ch 12, Article: Confirmation Bias, Article: Subjectivity: The Misused Word, Complete Matching Worksheets Begin Court Case
11	10/26 10/28	Error: Subjectivity and Cognitive Bias Human Factors, Mayfield Case Small Group Presentation Topic C	Worksheets	Keep readin'... FP Sourcebook Ch 13 & 15 Article: Defense Challenge to FP Continue Case Work for Court
12	11/2 11/4	Small Group Presentation Topic D Major Case Prints, Palms & Feet Lab: Rolling Palms & Feet	Palms & Feet	Continue Case Work for Court

Week	Date	In-Class Topics	Due	Readings, Assignments due next week
13	11/9 11/11	Group work on cases No Class: Happy Veteran's Day!		Complete Court Exhibit, Questions for Witnesses
14	11/16 11/18	Mock Court Session Mock Court Session	Court Exhibit & List of Defense Questions	
15	11/23- 25	No Class Meetings: Happy Thanksgiving!		Read FP Sourcebook Ch 6 Complete paper
16	11/30 12/2	Getting a Job as a Fingerprint Examiner: Internships, Job Postings, Applications, Resumes, Cover Letters, Interviews Last Class: Exam Review		Complete worksheets Study for Final
	FINAL	Thursday Dec 9, 2:45-5:00pm		Have a great semester break!