

San José State University
CASA/Department of Justice Studies
FS 163, Fingerprint Science, CRN 50869 & 50870, Fall 2017

Instructor	Mary Juno
Office Location	MacQuarrie Hall 511
Instructor Email	mary.juno@sjsu.edu
Canvas Website	https://sjsu.instructure.com/
Office Hours	Drop in Monday 0800-0900, Weds 1730-1830
Class Days, Times, & Location	M/W 1330-1525, Dwight Bentel Hall 133
Prerequisites	UPPER DIVISION STANDING JS MAJOR OR MINOR: JS 10; FS MAJOR OR MINOR: FS 11
JS & FS Library Liaison	Silke Higgins silke.higgins@sjsu.edu
FS LibGuide	http://libguides.sjsu.edu/c.php?g=230074&p=1526987

Course 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, and court presentation of fingerprint evidence.

Course Goals and 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.

Required Materials

- 1) The Fingerprint Sourcebook (NIJ) ISBN: 1-978-4949-9919-3 Available in print or as a pdf.
- 2) Retractable Ridge Counter and Loupe

Other Readings

Links to additional required readings and lab exercises will be posted on Canvas.

Assignments

- 1. Practical Exercises (30%): Locating typelines and deltas, pattern identification, ridge counting and tracing, recording fingerprints on ten-print cards, systems of classification,

ACE-V, matching partial prints, palm prints, latent print development, and case studies. Details of format and grading will be provided with each exercise. (LO1, LO2)

2. Exams and Quizzes (45%): Periodic quizzes on reading and lectures, one midterm and one final exam. (LO1 – LO5)
3. Presentation (25%): Each student will compare and identify two prints and create a professional court exhibit. Students will defend the identification in a mock court exercise. (LO3, LO4, LO5)

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

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

Extra Credit

Extra credit opportunities may be available throughout the semester and will be used to augment the final grade up to 3%.

1. Join a professional organization (CAC, AAFS, IAI, *etc.*) that is of specific interest to *you* and supply proof of membership before the end of the semester.
2. Tour a crime lab and write a 2-page, typed, double-spaced synopsis of the experience. Santa Clara has monthly tours, and San Mateo has an annual tour in October.

Class Policies

- No cell phones in class: Turn them off and put them away.
- Laptop use is not permitted in class; exceptions are possible but users must sit in the front row.
- Plagiarized work will result in severe disciplinary action.
- Late work may be submitted for half credit within one week of due date.
- Make-ups for exams will generally not be possible unless extraordinary, documented circumstances exist.
- Lab exercises cannot be made up, so don't miss them.
- Handle personal business before you begin an exam. A student who leaves the classroom *for any reason* during an exam will be presumed finished with the exam.

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](tel:408.924.2910) Website: <http://www.sjsu.edu/casa/ssc/> The [CASA Student Success Center](#) also provides study space and laptops for checkout.

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

Sept 6: Last Day to Drop Without a W

Sept 13: Last Day to Add a Course, Last Day to Submit [C/NC Request](#)

Nov 16: Last Day to Submit Late Drop/[Withdrawal Request](#)

Dec 11: Last day of Instruction

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.

Instructor

Mary Juno earned her MSc in Forensic Science from the University of Strathclyde in Glasgow, Scotland, and her 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 and taught in the Oakland Police Academy. She has conducted research at the NYPD Latent Fingerprint Lab, and currently teaches JS and FS courses, and advises FS majors and minors. Her office is 511 MacQuarrie Hall.

FS 163 Fingerprint Science Fall 2017 Course Schedule

Schedule is subject to change.

Week	Date	Topics and Deadlines	Readings and Assignments
1	8/23	Introduction, Course Overview, History of FP, FRS Structure and Formation	Take NIST Quiz, get loupe & ridge counter Read FP Sourcebook Ch 1 & 4 Read Capturing Legible FP
2	8/28 8/30	Lab: Rolling Tenprint Cards Fingerprint Pattern Overview Arches	Read FP Sourcebook Ch 2 & 3 Complete Worksheets
3	9/4 9/6	Loops Whorls	Read FSS Fingerprints Complete Worksheets
4	9/11 9/13	Quiz: Patterns, Ridge Counts and Values Systems of Classification	Read FP Sourcebook Ch 5 & 6 Complete Worksheets
5	9/18 9/20	Lab: Classification Classification Continued	Complete Worksheets
6	9/25 9/27	Quiz: Classification Individualization, Scientific Basis for FP Examination, Levels of Detail, ACE-V	Read FP Sourcebook Ch 9 & 14 Read Article: Scientific Methodology and the Friction Ridge Identification Process FP
7	10/2 10/4	Lab: Minutiae Points Matching Prints and Partial Ridgeology	Complete Worksheets
8	10/9 10/11	Midterm Exam Latent Prints Lab: Developing Latent Prints: Powders	Read FP Sourcebook Ch 7, 10 & 11 FBI Latent Print Guide
9	10/16 10/18	Latent Prints Continued Lab: Developing Latent Prints: Ninhydrin, Cyanoacrylate, ALS	
10	10/23 10/25	Lab: Evaluating Latents Tenprints Revisited/LiveScan	Read FP Sourcebook Ch 12, FBI Mayfield Case
11	10/30 11/1	Error: Subjectivity and Cognitive Bias Human Factors, Mayfield Case Lab: Ethics	Read FP Sourcebook Ch 13 & 15, Defense Challenge to Fingerprints, Confirmation Bias, Subjectivity
12	11/6 11/8	Courtroom Presentation of FP Evidence, Expert Testimony, Defense Challenges	Prep Court Exhibit, Witness Questions
13	11/13 11/15	Mock Court Session I Mock Court Session II	
14	11/20 11/22	Mock Court Session III No Class	
15	11/27 11/29	Palms and Feet Lab: Palms and Feet	Read FP Sourcebook Ch 6
16	12/4 12/6	AFIS, IAFIS, APIS, Lights Out Last Day of Class - Review	
17	12/11	Final Exam	