

San José State University
CASA/Department of Justice Studies
FS 163, Fingerprint Science, CRN 45684, Fall 2016

Instructor	Mary Juno
Office Location	MacQuarrie Hall 511
Instructor Email	mary.juno@sjsu.edu
Course Website	Course documents will be posted on Canvas https://sjsu.instructure.com/
Office Hours	Drop in TH 1000-1300
Class Days, Times, & Locations	TH 1330-1510 MH 520 FRI 1330-1530 MH 520
Prerequisites	UPPER DIVISION STANDING, FS 11 (FS students)
JS & FS Library Liaison	Silke Higgins silke.higgins@sjsu.edu
FS LibGuide	http://libguides.sjsu.edu/content.php?pid=57768&sid=2450175

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 (40%): 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 (40%): Periodic quizzes on reading and lectures, one midterm and one final exam. (LO1 – LO5)
3. Presentation (20%): 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. Note: A final grade of C or better is required for all Justice Studies and Forensic Science courses.

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. A professional organization is one that holds conferences and/or produces a periodic journal. This is not the same thing as an internship, job, or student organization; it is a professional *membership*.
2. Tour a crime lab and write a 2-page, double-spaced synopsis of the experience. SCCCL and SMCCCL are good options.
3. Attend a forensic science seminar this semester and write a 2-page, double-spaced synopsis of the experience.

Class Protocol and Policies

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. If you are in any doubt about the requirements of an assignment, or due dates/times, please re-read the directions of the assignment and/or schedule. If your question is still unanswered, contact me for clarification.

Attendance and class participation is expected. It is essential that you come to class prepared so keep up with the reading, complete assignments on time, and participate in class discussions. Lack of adequate participation *will* result in pop quizzes, which *will* count toward your final grade.

Cell phone use is not permitted during class. Students who use their phone in class will be asked to surrender it for the remainder of the class period. Laptops are permitted for note-taking only.

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](#) at <http://www.sjsu.edu/gup/syllabusinfo/>

Important Dates This Semester

<http://www.sjsu.edu/registrar/calendar/2164/index.html>

Sept 6: Last Day to Drop Without a W

Sept 13: Last Day to Add a Course, Last Day to Request CR/NC

Nov 17: Last Day to Submit Late Drop/Withdrawal Request <http://www.sjsu.edu/aars/forms/>

Dec 9: Last day of Instruction (for this class)

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 2016 Course Schedule

Schedule is subject to change.

Week	Date	Topics and Deadlines	Readings and Assignments
1	8/25 8/26	Introduction, Course Overview, History of FP, FRS Structure and Formation Fingerprint Pattern Overview	FP Sourcebook Ch 1 & 4 FSS: Fingerprints, Capturing Legible FP
2	9/1 9/2	Lab: 10 Print Cards Arches and Loops	FP Sourcebook Ch 2 & 3
3	9/8 9/9	Whorls	
4	9/15 9/16	Quiz: Patterns, Ridge Counts and Values Systems of Classification	FP Sourcebook Ch 5 & 6
5	9/22 9/23	Lab: Classification Out of class assignment	
6	9/29 9/30	Classification Continued Quiz: Classification	FP Sourcebook Ch 7, 10 & 11 FBI Latent Print Guide
7	10/6 10/7	Latent Prints Lab: Developing Latent Prints: Powders	FBI Latent Print Guide
8	10/13 10/14	Lab: Developing Latent Prints: Ninhydrin, Cyanoacrylate, ALS	FP Sourcebook Ch 9 & 14 Article: Scientific Methodology and the Friction Ridge Identification Process
9	10/20 10/21	Midterm Exam Scientific Basis for FP Examination, Levels of Detail, ACE-V	FP Sourcebook Ch 12 FBI: Mayfield Case Articles: Confirmation Bias, Subjectivity
10	10/27 10/28	Lab: ACE-V, Matching Prints and Partial Error: Subjectivity and Cognitive Bias Human Factors, Mayfield Case	FP Sourcebook Ch 13 & 15 Article: Defense Challenge to Fingerprints, Prep Court Exhibit, Witness Questions
11	11/3 11/4	Lab: Continued Courtroom Presentation of FP Evidence, Expert Testimony, Defense Challenges Lab: Ethics Codes for LPE	
12	11/10 11/11	Mock Court Session I	
13	11/17 11/18	Mock Court Session II	
14	11/24 11/25	No class this week: Happy Thanksgiving!	
15	12/1 12/2	Palms and Feet Lab: Palms and Feet	FP Sourcebook Ch 6
16	12/8 12/9	Livescan, AFIS, IAFIS, APIS, Lights Out Last Day of Class - Review	
17		Final Exam	