San José State University  
CASA/Department of Justice Studies  
FS 163, Fingerprint Science, CRN 49432 & 49433, Fall 2018

<table>
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<tr>
<th>Instructor</th>
<th>Mary Juno</th>
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<tr>
<td>Office Location</td>
<td>127 Health Building</td>
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<tr>
<td>Instructor Email</td>
<td><a href="mailto:mary.juno@sjsu.edu">mary.juno@sjsu.edu</a></td>
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<tr>
<td>Canvas Website</td>
<td><a href="https://sjsu.instructure.com/">https://sjsu.instructure.com/</a></td>
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<td>Office Hours</td>
<td>1330-1500 Mondays, drop-in, or by arrangement</td>
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<td>Class Days, Times, &amp; Location</td>
<td>Required Meeting: Monday 1500-1700 in Health Building 207, &amp; 1700-1930 in BBC 120</td>
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<td>Prerequisites</td>
<td>Upper division standing; JS 10 (JS major/minor); FS 11 (FS major/minor)</td>
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<tr>
<td>JS &amp; FS Library Liaison</td>
<td>Silke Higgins <a href="mailto:silke.higgins@sjsu.edu">silke.higgins@sjsu.edu</a></td>
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**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**  
2) Retractable Ridge Counter and Loupe

**Other Readings**  
Additional required readings, lab documents, and quizzes will be posted on Canvas. You will be required to download and print out some materials (worksheets and labs) and bring them to class.
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, accuracy, 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 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
Aug 31: Last Day to Drop Without a W
Sept 10: Last Day to Add a Course, Last Day to Submit C/NC Request
Nov 16: Last Day to Submit Late Drop/Withdrawal Request
Dec 10: 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. She has conducted research at the NYPD Latent Fingerprint Lab, and is currently the co-coordinator of the FS program at SJSU. Her office is 127 HB.
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<th>Week</th>
<th>Date</th>
<th>Class Topics</th>
<th>Readings and Assignments</th>
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| 1    | 8/27  | Introduction, Course Overview, History of FP, FRS Structure and Formation, Fingerprint Pattern Overview | Take NIST Quiz. get loupe & ridge counter  
Read FP Sourcebook Ch 1, 2 & 3                                                              |
| 2    | 9/3   | **No Class Meeting: Labor Day**  
Complete readings and take quiz on Canvas                                                | Read FP Sourcebook Ch 4  
Read [Capturing Legible FP](#)                                                            |
| 3    | 9/10  | Lab: Ten Prints & Major Case Prints                                           | Read [FSS Fingerprints](#)  
Print out docs from Canvas                                                                  |
| 4    | 9/17  | Bring Loupe and Ridge Counter to Class Loop Ridge Counts, Whorl Ridge Values | Read FP Sourcebook Ch 5  
Complete Worksheets                                                                           |
| 5    | 9/24  | Henry Classification Pattern Quiz                                            | Read Handouts on Canvas  
Complete Worksheets                                                                           |
| 6    | 10/1  | Henry, NCIC, IAFIS Classification Quiz                                        | Read FP Sourcebook Ch 9 & 14  
Read Article: Scientific Methodology and the Friction Ridge Identification Process FP      |
| 7    | 10/8  | Individualization, Scientific Basis for FP Examination, Levels of Detail, ACE-V Ridgeology | Complete Worksheets  
Study for Midterm                                                                            |
| 8    | 10/15 | Take Midterm Exam on Canvas  
Latent Prints & Evaluation                                                            | Read FP Sourcebook Ch 7, 10 & 11  
[FBI Latent Print Guide](#)                                                                |
| 10   | 10/29 | Lab: Developing Latent Prints: Chemical Methods & Evaluation                  | Read FP Sourcebook Ch 12, FBI Mayfield Case, Confirmation Bias                           |
| 11   | 11/5  | Error: Subjectivity and Cognitive Bias                                         | Read FP Sourcebook Ch 13 & 15                                                            |
| 12   | 11/12 | **No Class Meeting: Veteran’s Day**  
Reading Quiz                                                                               | Read Defense Challenge to Fingerprints                                                    |
| 13   | 11/19 | Courtroom Presentation of FP Evidence, Expert Testimony, Defense Challenges    | Prep Court Exhibit & Witness Questions                                                    |
| 14   | 11/26 | Mock Court                                                                    |                                                                                          |
| 15   | 12/3  | Palms and Feet  
Lab: Palms and Feet                                                                | Read FP Sourcebook Ch 6                                                                    |
| 16   | 12/10 | Exam Review  
AFIS, IAFIS, APIS, Lights Out                                                  |                                                                                          |
| 16   | 12/14 | Final Exam                                                                    |                                                                                          |