

San José State University
Department of Justice Studies
FS 162, Forensic Science Applications, CRN 23567, Sp 2015

Instructor	Mary Juno
Office Location	MacQuarrie Hall 511
Email	mary.juno@sjsu.edu
Website	http://www.sjsu.edu/at/ec/canvas/
Office Hours	Thurs 2:00-3:00, Fri 12:00-2:00
Class Time/Room	Thurs 3:00-5:00, Fri 9:00-11:00, MacQuarrie 523
Prerequisites	FS 11, JS OR FS MAJOR/MINOR, UPPER DIVISION STANDING. JS STUDENTS MAY SUBSTITUTE JS 10 FOR FS 11.
JS & FS Library Liaison	Nyle Monday nyle.monday@sjsu.edu , Silke Higgins silke.higgins@sjsu.edu

Course Description

Scientific analysis and interpretation of physical evidence using identification and comparison techniques. Practical lab exercises in human identification, questioned documents, bite marks, trace evidence, presumptive testing and glass analysis. Additional topics include court testimony, quality assurance and ethics.

Course Content Learning Outcomes

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

LO1 Demonstrate knowledge of practical analytical techniques in human identification, serology, trace evidence, questioned documents, pattern identification, glass reconstruction, and bite mark identification.

LO2 Understand the history and importance of DNA fingerprinting, articulate the principles of DNA profiling and inheritance, and apply this knowledge to a realistic field exercise.

LO3 Analyze and critically evaluate ethical issues in forensic science.

LO4 Explain and describe the Scientific Method; the Locard Exchange Principle; safe lab practices and proper evidence handling techniques; cause and manner of death; class and individual characteristics of evidence; identification, individualization and comparison techniques; and probative value and probability,

Assignments

1. Exams (40%) There will be periodic quizzes/exams on reading and lecture content, and one final exam. Format will include multiple choice, fill-in, short essay and diagrams. (LO1, LO2, LO3, LO4)
2. Laboratory Exercises (25%) Labs will include Locard Principle, Hair & Soil, Physical Fit, Questioned Documents, Human ID, Presumptive Tests for Blood & Semen, Pattern Evidence, and Anthropometry. (LO1)
3. Chapter Exercises (25%) Each student will write a 1-page, double-spaced synopsis of each chapter. Additionally, each student will write two review questions per chapter. (Extra credit if your question is used on an exam!) Also, each *group* will produce two chapter powerpoints.
4. DNA/Mass Disaster Paper (10%) Each student will determine familial relationships between and among disarticulated body parts by correctly interpreting DNA profiles, and write their findings in a 3-4 page scientific report. (LO2)

Required

Strom, K. J. & Hickman, K. J. (2014). *Forensic Science and the Administration of Justice*. SAGE. ISBN-13: 978-1452276885

Composition notebook or lab notebook

Recommended

James, S., Nordby, J., & Bell, S. (2014). *Forensic Science: An Introduction to Scientific and Investigative Techniques, 4/E*. CRC Press/Taylor & Francis. ISBN-13: 978-1439853832

Other Readings

Journal articles, tutorials, and links to other required readings will be posted on Canvas. It is the student's responsibility to check the website (minimum twice weekly) for new postings.

Grading Scale for All Assignments

A+	97-100	B+	87-89	C+	77-79	D+	67-69
A	94-96	B	84-86	C	74-76	D	64-66
A-	90-93	B-	80-83	C-	70-73	D-	60-63
						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 major and minor coursework.

Extra Credit

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

1. Join a criminal justice or forensic science professional organization *that is of interest to you* and supply proof of membership before the end of the semester.
2. Attend a lecture in the Forensic Science Seminar Series and write a two-page, double-spaced, typewritten paper that includes a synopsis of the talk and your reaction/response.
3. Have your review question used on a quiz.
4. Tour a crime lab and write a two-page, double-spaced, typewritten paper that includes a synopsis of the tour and your reaction/response.

Late Work and Make Ups

Late work will not be accepted, or may be given half credit in some instances. Make-ups will generally not be possible unless extraordinary, documented circumstances exist. 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.

Classroom Protocol

Attendance and class participation is expected. It is essential that you come to class prepared so please 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 and laptop use is not permitted during class.

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. Find FSS on facebook at San Jose State University Forensic Science Students.

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 located in MacQuarrie Hall, Room 533 (top floor) provides GE advising for undergraduate students majoring or interested in majoring in programs offered by CASA Departments and Schools. The Student Success Center provides also assistance with changing majors, answers to academic policy related questions, meetings with peer advisors and/or various regularly scheduled presentations and workshops. <http://www.sjsu.edu/casa/ssc/>

University Policies

Academic Integrity

Academic integrity is essential to the mission of San José State University. Students are expected to perform their own work (except when collaboration is expressly permitted by the course instructor) without the use of any outside resources. Students are not permitted to use old tests, quizzes when preparing for exams, nor may they consult with students who have already taken the exam. When practiced, academic integrity ensures that all students are fairly graded. Violations to the Academic

Integrity Policy undermine the educational process and demonstrate a lack of respect for oneself, one's fellow students and the course instructor. Violations also can ruin the university's reputation and devalue of the degrees it offers. We all share the obligation to maintain an environment that practices academic integrity.

The University's Academic Integrity Policy is available at http://www.sa.sjsu.edu/download/judicial_affairs/Academic_Integrity_Policy_S07-2.pdf. Your own commitment to learning, as evidenced by your enrollment at San Jose State University, requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The website for Student Conduct and Ethical Development is http://www.sa.sjsu.edu/judicial_affairs/index.html.

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade in the course and will be subject to sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include in your assignment any material you have submitted, or plan to submit for another class, please note that SJSU's Academic Policy F06-1 requires approval of instructors.

Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drops, academic renewal, etc. Information on add/drops is available at <http://info.sjsu.edu/web-dbgen/narr/soc-fall/rec-298.html>. Information on late drops is available at <http://www.sjsu.edu/sac/advising/latedrops/policy/>. Students should be aware of the current deadlines and penalties for adding and dropping classes.

Campus Policy in Compliance with the American Disabilities Act

The Accessible Education Center (. <http://www.aec.sjsu.edu/>) provides resources for students with disabilities. Resources include: Academic Accommodation, Academic Advising, Adaptive Technology Center, Alternative Media Center, Deaf & Hard of Hearing Program, Disabled Parking, Guidelines for Documentation of Disability, Educational Assistants, Learning Disabilities, and Priority Registration. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the AEC to establish a record of their disability. If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please see me during office hours.

AEC: Administration Building 110

Phone: 408.924.6000 (Main Office) 408.924.6542 (Deaf and HoH) 408.808.2123 (ATC)

Hours: Mon - Thurs, 9:00am to 6:00pm; Friday 10:00 am to 4:00 pm

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 162 Forensic Science Applications Spring 2015 Course Schedule

Schedule is subject to change.

Week	Date	Topics and Assignments Due
1	1/22 & 1/23	Introductions and Course Overview, Form Groups, Lab Notebook Rubric Forensic Laboratory Structure, Roles & Responsibilities, Types of Analysis
2	1/29 & 1/30	Probative Value of Forensic Evidence, Probability Lab: Locard Exchange Principle
3	2/5 & 2/6	Microscopy & Trace Evidence, Munsell Locard Lab Continued, Begin Soil & Hair Lab
4	2/12 & 2/13	Physical Fit Lab Exam 1: Types of Analysis, Terms
5	2/19 & 2/20	Pattern Evidence: Questioned Documents Lab: QD
6	2/26 & 2/27	Footwear, Bitemarks Lab: Footwear, Bitemarks
7	3/5 & 3/6	Exam 2: Pattern Evidence Human ID: Anthropometry, Serology Lab: Anthropometry
8	3/12 & 3/13	Lab: Presumptive Tests for Blood & Semen DNA Lab: Mass Disaster Project Mass Disaster
9	3/19 & 3/20	Mass Disaster Continued/Completed MD Due 3/20, Lab Notebooks due 3/20 Exam 3: Human ID and DNA
10	3/26 & 3/27	No Classes: Spring Break!
11	4/2 & 4/3	CSI Effect, Evidence Backlogs, Section I: Ch 1-3, exercises due , Groups 1-3 Present
12	4/9 & 4/10	Research Culture in FS, SWGs, best practices Bias and Ethics Section II: Ch 4-6, exercises due , Groups 4-6 present
13	4/16 & 4/17	Impact of Forensic Evidence, Prosecutor's Role Section III: Ch 7-9, exercises due , Groups 7,1 & 2 present
14	4/23 & 4/24	Problems and Challenges Innovation, Success & Error in DNA Section IV: Ch 10-11, exercises due , Groups 3-4 present

Week	Date	Topics and Assignments Due
15	4/30 & 5/1	Crime Labs Section V: Ch 12-14, exercises due Groups 5-7 present
16	5/7 & 5/8	Exam 4: FS & AJ
Final Exam	TBD	