

Justice Studies Department
San Jose State University
Fall 2005
Class hours MW 1330-1445
Room: MH 520

Instructor: Dr. Steven Lee
Office Hrs: W 1445-1945
set by appointment via email
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JS 112 Criminalistics

Course Description:

Course Objective

This course will teach an understanding of the fundamental theories of physical evidence, practically applied; and the legal consideration involved in its recognition, collection, preservation and presentation in court. Physical evidence includes such things as fibers, glass, hair, soil, bullets, fingerprints, and shoeprints. Learn the appropriate methods for processing, securing, and isolating a crime scene. Topics include recording the scene, searching for evidence, decision-making about what evidence is appropriate and necessary to collect, procedures for collecting physical evidence, and maintaining the chain of custody to avoid contamination.

Course Text and materials: Spartan Bookstore

Required Texts:

Techniques of Crime Scene Investigation, Seventh Edition. 2004 Barry Fisher.

ISBN084931691X, 544 pages. CRC Press

Evidence and Crime Scene Reconstruction (Expanded 6th edition - April 2002), National Crime Investigation and Training Joe Rynearson, Jerry Chisolm and Jim Weigand

<http://www.ncit.com>

Required reading and internet materials:

Journal articles and other readings will be accessible at the SJSU library, on reserve or will be accessible on line. Citations and URLs for on line materials will be provided in assignments.

NIJ on line documents (eg: Crime scene investigation guidelines

<http://www.ncjrs.org/pdffiles1/nij/178280.pdf>, Crime Scene Investigator Web sites-

<http://www.crime-scene-investigator.net/> and the CA Dept of Justice Physical Evidence Bulletins:

<http://www.cci.ca.gov/Reference/pehb/peb.html> and other web sites will be required.

Supplementary Texts (Optional)- Course material may include citations from the following:

Criminalistics: An Introduction to Forensic Science (College Version), 8/E, Copyright 2004, published 6-18-2003, RE. Saferstein, Ph.D., ISBN: 0-13-111852-8, Prentice Hall, 608 pp.

<http://vig.prenhall.com/catalog/academic/product/0,4096,0131118528,00.html>

Henry Lee's Crime Scene Handbook. 2001. Henry Lee. PhD. ISBN 0-12-440830-3, 418pp. Academic Press.

Forensic Science: An Introduction to Scientific and Investigative Techniques. 2003. Stuart H. James and Jon J. Nordby eds., ISBN: 0849312469, 698pp. CRC Press

Forensic Firearms Evidence handbook. 1995. Lucian Haag. Workbook.

Experiments and Practical Exercises in Bloodstain Pattern Analysis. 1998. Laber, T and Epstein B. 1998 5th printing. Minnesota BCA.

Course Format:

The course will include **lectures by the instructor and guest lectures** from law enforcement agencies. **Discussions, videos, small-group hands-on activities, and hands-on crime scene exercises** will also be included throughout the semester. On-line chat sessions if possible will also be offered.

Course requirements:

Exams: Three exams will be given in this course. Exams will be cumulative and will include all material covered up to the date of the exam. Exams may include multiple choice, matching, true/false, short answer, diagrams, drawings and sketches, short essay and/or long essay.

Exam 1: Wed Sept 28 Exam 2: Wed Nov 2 Final: Wed, Dec 14 1215-1430

Quizzes

Quizzes on assigned readings, laboratories, small group activities and other assigned materials will be given during the semester. These will generally be multiple choice, matching, true/false and short answer but may also include essay questions.

Hands-on Crime scene Exercises and Assignments

Five hands-on crime scene exercises will be required. Each will be worth 10 points. The format and grading of the laboratory reports will be provided at the first laboratory session. Bound notebooks are required for all 5 laboratory reports.

Grading

Quizzes	100 points
Exam 1	100 points
Exam 2	100 points
Final exam	150 points
Crime scene exercises	50 points
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Total required	500 points

A total of 10 points may be granted for small group assignments and other individual assignments during the semester. Each assignment will be worth 1-2 points each. These extra credit points may be used to augment your final point total.

Grading Policies

Make-up exams will not generally be permitted. However, under extraordinary circumstances, with proper documentation and approval by the instructor, a 15 page single-spaced term paper of an instructor assigned topic, may substitute for 1 exam.

	From	To
A+	483.5	500
A	467	483.4
A-	450	466.9
B+	433.5	449.9
B	417	433.4
B-	400	416.9

C+	383.5	399.9
C	367	383.4
C-	350	366.9
D+	333.5	349.9
D	317	333.4
D-	300	316.9
F	<300	

Instructor

Professor Lee holds an MS from NYU and PhD from University of California, Berkeley in Molecular Biology. Lee holds several concurrent positions including a consulting position as Director of R&D at MiraiBio Inc. a small biotech company in Alameda, CA, Visiting Scholar at UC Berkeley, and holds adjunct professor appointments in Biological Sciences at San Francisco State University and Chemistry at Florida International University. He was formerly the Director of R&D at CA Dept of Justice DNA Laboratory from 1994-2000 where he served as an expert witness in DNA and conducted DNA training courses. He is a full member of the American Association for the Advancement of Science, American Academy of Forensic Sciences, the California Association of Criminalists and is an American Society of Crime Laboratory Directors Laboratory Accreditation Board certified inspector. He also served on the FBI Technical Working Group on DNA Analysis Methods group from 1994-2000.

Academic Integrity Policy

Academic integrity is essential to the mission of San José State University. As such, 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 will not be tolerated. It also demonstrates a lack of respect for oneself, fellow students and the course instructor and can ruin the university's reputation and the value of the degrees it offers.

We all share the obligation to maintain an environment which practices academic integrity. Violators of the Academic Integrity Policy will be subject to failing this course and being reported to the Office of Judicial Affairs for disciplinary action which could result in suspension or expulsion from San José State University.

CHEATING:

At SJSU, cheating is the act of obtaining or attempting to obtain credit for academic work through the use of any dishonest, deceptive, or fraudulent means. Cheating at SJSU includes but is not limited to:

Copying in part or in whole, from another's test or other evaluation instrument;
Submitting work previously graded in another course unless this has been approved by the course instructor or by departmental policy. Submitting work simultaneously presented in two courses, unless this has been approved by both course instructors or by departmental policy.
Altering or interfering with grading or grading instructions; Sitting for an examination by a surrogate, or as a surrogate; any other act committed by a student in the course of his or her academic work which defrauds or misrepresents, including aiding or abetting in any of the actions defined above.

PLAGIARISM:

At SJSU plagiarism is the act of representing the work of another as one's own (without giving appropriate credit) regardless of how that work was obtained, and submitting it to fulfill academic requirements. Plagiarism at SJSU includes but is not limited to:
The act of incorporating the ideas, words, sentences, paragraphs, or parts thereof, or the specific substances of another's work, without giving appropriate credit, and representing the product as one's own work; and representing another's artistic/scholarly works such as musical

compositions, computer programs, photographs, painting, drawing, sculptures, or similar works as one's own.

Academic Integrity Assignment

Academic Integrity policy and consequences can be found at <http://www2.sjsu.edu/senate/S04-12.htm> A self guided on-line tutorial is required of all students:
<http://tutorials.sjlibrary.org/plagiarism/index.htm>

You must complete this tutorial and print out your report at the end.

Bring your results by 31 August. The quiz on 31 August will consist of questions on the academic policy and tutorial.

Tentative Course Schedule:

Dates	Topics	Readings- Fisher/Rynearson
Week 1: 24 Aug	Introduction and Overview of the Course Handouts-Syllabus- Reading material Introductions: Your background, peer mentor backgrounds, my background Course Description, requirements, grading etc. Set up small student groups	
	Types of Crime Overview of Physical Evidence in Criminal Investigation	Ch 1 / Tab 1
Assignment 1. Visit On-line tutorial - http://tutorials.sjlibrary.org/plagiarism/index.htm and complete quiz. Bring in hard copy by 31 August.		
Week 2 29 Aug	Crime Scene Management Overview of Physical Evidence in Criminal Investigation continued Information, Resources, Technology Logistics, Role of the Criminalist	C5 / Tab 2
31 Aug	Crime Scene Exercise 1A: Measurements – Precision/Accuracy	
Week 3: 5 September 7 September	General Crime Scene Procedures Holiday-No class Role of the first responder Initial crime scene response, Communication, Legal implications Documentation, Preliminary reconstruction, Investigative team, Biohazards Crime Scene Exercise 1B: Measurements, Securing a scene	C2&C4 / Tab 2
Week 4 12 Sept.	Crime Scene Documentation Note-taking Videography, Photography, Sketching	C5 /Tab 2
14 Sept.	Crime Scene Exercise 2A: Documentation, Sketching and Note taking	
Week 5 19 Sept 21 Sept	Searching for Physical Evidence Objectives Locating physical evidence, Search patterns, Practical applications Crime Scene Exercise 2B: Documentation, Sketching and Note taking Student led exam review	C5 /tab 2

Week 6	Student Led reviews and Exam 1	
26 September	Student led reviews – Leaving for International Symposium on Human ID	
28 September	Exam 1- Lee at International Symposium on Human ID	
Week 7	Collection/Preservation of Physical Evidence	C6/ Tab2
3 October	Fingerprints- Three basic patterns, principles, searching and collection	
5 October	Crime Scene Exercise 3 A. Searching for physical evidence	
Week 8	Firearms and Toolmarks and Impression Evidence	C9&C10 /Tab4
10 October	Firearms and Toolmarks/Impression Evidence	
12 October	Crime Scene Exercise 3B- Searching for physical evidence	
Week 9	Firearms	Chapter 10/Tab 4
17 Oct	Firearms and Toolmarks/Impression Evidence continued	
19 Oct	CSI 4 : Glass Exercise – Reconstruction of a shooting incident	
Week 10	Reviews for Exam 2	
24 Oct	CSI Follow up on searching and glass	
26 Oct	Student led reviews	
Week 11	Exam 2	
31 Oct	Student led reviews, Instructor Study guide Reviews	
2 Nov	Exam 2	
Week 12	Collection and Preservation of Physical Evidence	C11&12
7 Nov	Arson, explosives, Drugs, Volatile and transitory evidence, QDs	
9 Nov	Crime Scene Exercise 5- Impression evidence	
Week 13	Biological Evidence	C8&C13
14 Nov	Biological Evidence-Intro to Cell biology and Deoxyribonucleic Acid General Considerations- Liquid vs dried blood Reference samples, seminal stains, saliva, urine, perspiration	
16 Nov	Crime Scene Exercise 6- Bloodstain patterns	
Week 14	Biological Evidence- screening and typing	Ch 8 & Ch 13
21 Nov.	Presumptive tests	
23 Nov	Forensic DNA typing-RFLP vs PCR, STRs, mtDNA, and CODIS	
Week 15	Crime Scene Reconstruction and Homicide Investigation	Ch 16 / Tab3
28 Nov	Importance, Nature, Basic principles	
30 Nov	Homicide investigation and the role of the medical examiner Estimating time of death	
Week 16	Student Led reviews for final exam	
5 Dec	Student Led reviews for final exam	
7 Dec	Course Review for final exam Crime Scene Exercise 4B- Bloodstains and other bodily fluids	

Assignment 1. Due 1 September by email to Steven.Lee@sjsu.edu

Part A.

Review for the following: <http://www.crime-scene-investigator.net/respon1.html>

Read and discuss the Overview section and Personnel Duties and Responsibilities of this URL (next time we will discuss personnel duties and responsibilities) among your team mates. After reviewing write 3 quiz questions with a separate sheet for answers and explanations. Total size of the document you submit should not be more than 3 paragraphs (300 words of questions and answers). You may include 1 multiple choice question. Bring hard copy of questions and answers.

Part B. Start to collect the following individually and with your team mates

(For a complete list See Appendix I in Lee. 2001)

For each person:

1. Bound notebook with page numbers- Spiral notebooks are not as good as pages can easily be torn out. If you need to use a spiral notebook, be sure every page is numbered. 1 per person
2. Tape measure- 1 per person
3. Rulers and protractors (with metric and inches)- 1 per person
4. Graph paper (10 sheets/person)
5. Permanent sharpie markers (at least 2- black or blue)
6. Pens (ball points)
7. Manila envelopes (10 – 8x11”, 10 coin envelopes per person)
8. Paper bags- Grocery sized (5/person)
9. Plastic ziplock bags (5/person)
10. Q tips (20/person)

Important ! (Items in Bold and Italics are needed by 1 Sept)

For each team

11. Clear packing tape with dispenser
12. 35 mm camera with 3 rolls of film
13. Rope or Twine
14. Pill boxes (various sizes)
15. String
16. Labels
17. Tweezers
18. Dust buster vacuum and new vacuum bag
19. Scissors
20. Toothpicks

I will provide access to- Knife, Gloves (latex), Masks (painters), Etoh wash bottles
Cleaning solutions, Lab coveralls/booties, Water bottles

This list will be completed in the following weeks before our first exercise.

For next week please bring items 1-6