

Administration of Justice Department  
San Jose State University  
Spring 2004  
Class hours W 1330-1445  
Room: TBA

Instructor: Dr. Steven Lee  
Office Hrs: M 1500-2000  
set by appointment via email  
email [Steven.Lee@sjsu.edu](mailto:Steven.Lee@sjsu.edu)  
phone 408-924-2948

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

*Techniques of Crime Scene Investigation*, 2003. Seventh Edition. Barry A. J. Fisher. ISBN: 084931691X. CRC Press LLC. 544 pp.

*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>

*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 5<sup>th</sup> printing. Minnesota BCA.

### Course Format:

The course will include **lectures by the instructor and guest lecturers** from law enforcement agencies. **Discussions, 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:	Monday March 8th
Exam 2:	Monday April 14th
Final	TBA

### 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.

### 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 is currently the Director of R&D at Hitachi Genetic Systems, Visiting Scholar at UC Berkeley, and is also an adjunct professor at San Francisco State University and 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 AAFS, CAC and is ASCLD-LAB certified.

### Tentative Course Schedule:

<u>Dates</u>	<u>Topics</u>	<u>Lee</u>
<b>Week 1:</b>	<b>Introduction and Overview of Forensic Science</b>	<b>Chap 1 (C1)</b>
2/2/04	Handouts-Syllabus- Reading material Introductions: Your background, TA backgrounds, my background Course Description, requirements, grading etc. Set up small student groups <i>Assignment- Sign in- send an email to: Steven.Lee@sjsu.edu</i> <i>Read Lee Chapter 1</i> Safety concerns Types of Crime	
2/4	Overview of Physical Evidence in Criminal Investigation Overview of Physical Evidence in Criminal Investigation	C1
<b>Week 2:</b>	<b>Crime Scene Management</b>	<b>C2</b>
2/9	Information and Resources	
2/9	<b>Crime Scene Exercise 1: Measurements, Securing a scene</b>	
2/11	Information and Resources Technology, Logistics and the Role of the Criminalist	C2
<b>Week 3:</b>	<b>General Crime Scene Procedures</b>	<b>C3</b>
2/16	Role of the first responder Initial crime scene response, Communication, Legal implications	
2/18	Documentation, Preliminary reconstruction, Investigative teams Biohazards	
<b>Week 4:</b>	<b>Crime Scene Documentation</b>	<b>C4</b>
2/23	Note-taking, Videography, Photography, Sketching	
2/25	<b>Crime Scene Exercise 2A: Documentation, Sketching and Photos</b>	
<b>Week 5:</b>	<b>Crime Scene Documentation Continued</b>	
3/1	<b>Crime Scene Exercise 2B Documentation, Sketching and Photos</b>	
3/3	Review for Exam 1	
<b>Week 6:</b>	<b>Exam 1 and Searching for Physical Evidence</b>	<b>C1,2,3,4</b>
3/8	<b>Exam 1:</b>	C 1, 2, 3, and 4
3/10	<b>Searching for Physical Evidence</b> Objectives Locating physical evidence, Search patterns, Practical applications	C5
<b>Week 7:</b>	<b>Searching for Physical Evidence cont.</b>	<b>C5</b>
3/15	Objectives- Locating physical evidence, Search patterns, Practical applications	
3/17	<b>Crime Scene Exercise 3A- Searching for physical evidence</b>	

<b>Week 8:</b>	<b>Collection and Preservation of Physical Evidence</b>	<b>C6</b>
	<b>Fingerprints, Hairs, Fibers and Trace</b>	
	Searching for Physical Evidence continued	
3/22	<u>Collection and Preservation of Physical Evidence</u>	
3/24	<b>Crime Scene Exercise 3B- Searching for physical evidence, documentation, collection and preservation</b>	
<b>Week 9:</b>	<b>Spring Break 3/29-4/2</b>	
<b>Week 10:</b>	<b>Collection and Preservation of Physical Evidence</b>	<b>C6</b>
	Firearms and Toolmarks and Impression Evidence	
4/5	Firearms	
4/7	Toolmarks and other impression evidence	
<b>Week 11:</b>	<b>Collection and Preservation of Physical Evidence and Exam 2</b>	<b>C6</b>
4/12	Arson, explosives, Drugs, Volatile and transitory evidence, QDs	
	Review for Exam 2	
4/14	<b>Exam 2</b>	
<b>Week 12</b>	<b>Biological Evidence</b>	<b>C6</b>
4/19	Biological Evidence-Intro to Cell biology and Deoxyribonucleic Acid	
	General Considerations- Liquid vs dried blood	
4/21	Reference samples, seminal stains, saliva, urine, perspiration	
	<b>Crime Scene Exercise 4A- Bloodstains</b>	
<b>Week 13</b>	<b>Reconstruction and Logic Trees</b>	<b>C7</b>
4/26	Logic trees- Recognition, Identification, Individualization	
4/28	Introduction to Reconstruction	
<b>Week 14:</b>	<b>Field Tests, Enhancement Reagents and Special Techniques</b>	<b>C8,9</b>
5/3	Field tests and Enhancement Reagents	
	<b>Crime Scene Exercise 4B-Semen Stains</b>	
5/5	Special scene techniques -Computer forensics	<b>C9</b>
	<b>Crime Scene Exercise 5A- Court Testimony: Group 1</b>	
<b>Week 15</b>	<b>Crime Scene Reconstruction</b>	<b>C10</b>
5/10	<b>Crime Scene Reconstruction vs. reenactment, recreation or profiling</b>	
	Importance, Nature, Basic principles- RIIRS- Recognition, Identification, Individualization, Interpretation, Reconstruction, Solution	
	<b>Crime Scene Exercise 5B- Court Testimony: Group 2</b>	
5/12	Individualization, Interpretation, Reconstruction, Solution	
	<b>Crime Scene Exercise 5C- Court Testimony: Group 3</b>	
<b>Week 16</b>	<b>Crime Scene Reconstruction and Review</b>	<b>C10</b>
5/17	<b>Crime Scene Exercise 5C- Court Testimony: Group 4</b>	
	Logic, Ethics, and the Criminal Justice System	
	Considerations in evidence interpretation	
	Lessons from- Court Testimony	
	Course Review for final exam	
	<b>Final Exam: TBA</b>	