Justice Studies Department
San Jose State University
Fall 2004
Class hours W 1730-2015
Room: MH 523

Instructor: Dr. Steven Lee
Office Hrs: M 1500-1800 T1100-1300
set by appointment via email
email Steven.Lee@sjsu.edu
phone 408-924-2948

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:

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/ncj/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:
http://vigi.prenhall.com/catalog/academic/product/0,4096,0131118528,00.html
http://www.nejt.com
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 09/29/04  Exam 2: Wed 11/03/04  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. Bound notebooks are required for all 5 laboratory reports.

Grading

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<tr>
<td>Quizzes</td>
<td>100 points</td>
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<td>Exam 1</td>
<td>100 points</td>
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<td>Exam 2</td>
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<td>Final exam</td>
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<td>Crime scene exercises</td>
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<td>Total required</td>
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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.

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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.

Tentative Course Schedule:
<table>
<thead>
<tr>
<th>Dates</th>
<th>Topics</th>
<th>Lee/Fisher</th>
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<tbody>
<tr>
<td>8/25/03</td>
<td>Introduction and Overview of the Course</td>
<td>C1/C1</td>
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<td>Welcome- Sign up for small groups - Safety concerns</td>
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<td>Types of Crime</td>
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<td>Overview of Physical Evidence in Criminal Investigation</td>
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<td>9/1/03</td>
<td>Crime Scene Management</td>
<td>C2/C5</td>
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<td>Overview of Physical Evidence in Criminal Investigation continued</td>
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<td>Information, Resources, Technology</td>
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<td>Logistics, Role of the Criminalist</td>
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<td>Crime Scene Exercise 1A: Measurements – Precision/Accuracy</td>
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<td>9/8/03</td>
<td>General Crime Scene Procedures</td>
<td>C3/C2&amp;C4</td>
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<td>Role of the first responder</td>
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<td>Initial crime scene response, Communication, Legal implications</td>
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<td>Documentation, Preliminary reconstruction, Investigative team, Biohazards</td>
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<td>Crime Scene Exercise 1B: Measurements, Securing a scene</td>
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<td>9/15/03</td>
<td>Crime Scene Documentation</td>
<td>C4/C5</td>
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<td>Note-taking</td>
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<td>Videography, Photography, Sketching</td>
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<td>Crime Scene Exercise 2A: Documentation, Sketching and Note taking</td>
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<td>9/22/03</td>
<td>Searching for Physical Evidence</td>
<td>C5/C5</td>
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<td>Objectives</td>
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<td>Locating physical evidence, Search patterns, Practical applications</td>
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<td>Crime Scene Exercise 2B: Documentation, Sketching and Note taking</td>
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<td>Student led exam review</td>
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<td>9/29/04</td>
<td>EXAM 1</td>
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<td>10/6:</td>
<td>Collection/Preservation of Physical Evidence</td>
<td>C6/C6&amp;C7</td>
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<td>FINGERPRINTS, Hairs, Fibers and Trace</td>
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<td>Video- FBI Crime Laboratory</td>
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<td>Note- LEE will be at the International Symposium on Human Identification</td>
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10/13: Firearms and Toolmarks and Impression Evidence C6/C9&C10
Crime Scene Exercise 3A- Searching for physical evidence

10/20: Collection and Preservation of Physical Evidence C6/C11&12
Arson, explosives, Drugs, Volatile and transitory evidence, QDs
Crime Scene Exercise 3B- Searching for physical evidence, documentation, collection and preservation

10/27: Biological Evidence C6/C8&C13
Biological Evidence-Intro to Cell biology and Deoxyribonucleic Acid
General Considerations- Liquid vs dried blood
Reference samples, seminal stains, saliva, urine, perspiration
Crime Scene Exercise 4A- Bloodstains
Student Led Exam Review

11/3: Exam 2

11/10: Field Tests, Enhancement Reagents C8
Tests for blood, body fluids, GSR, explosives, drugs, blood, protein, fatty acids
Crime Scene Exercise 4B- Bloodstains and other bodily fluids

11/17: Special Techniques C9
Outdoor, Fire, Clan Labs, Electronic and Computer Evidence

11/24: No Class

12/1: Crime Scene Reconstruction and Homicide Investigation C10/C16
Importance, Nature, Basic principles

12/3: Crime Scene Reconstruction and Homicide Investigation continued
Course Review, All reports in notebooks are due
Student let final review
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. Email Qs and As to me

Part B. Start to collect the following individually and with your team mates
(For a complete list See Appendix 1 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 (2/person)*
10. *Q tips (20/person)*

*Important! (Items in Bold and Italic 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