Justice Studies Department        Instructor: Mary Juno
San Jose State University        Office Hrs: Tues Noon – 2pm
Fall 2006                        Set by appointment via email
Class hours TTh 1030-1145        Email: junos68@yahoo.com
Room: MH 520

JS 112
Criminalistics

Course Description:
Course Objective
This course covers fundamental theories of physical evidence, practically applied, and the legal considerations involved in its recognition, collection, preservation and presentation in court. Students will learn the appropriate methods for securing and processing different types of crime scenes, as well as how to search for and document evidence. Topics include latent fingerprints, scene photography, impression evidence, firearms, questioned documents, trace evidence, and death investigations.

Course Text and materials: Spartan Bookstore
Required Texts:

Criminalistics 112 Course Reader
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 online materials will be provided in assignments. The web sites we will use include the following
- Fingerprints: http://www.fbi.gov/hq/cjisd/ident.htm
- Crime Scene Investigation: http://www.crime-scene-investigator.net/
- CA Dept of Justice Physical Evidence Bulletins: http://www.cci.ca.gov/Reference/pehb/peb.html, and other forensic science web sites will be required reading.

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


Course Format:
The course will include lectures by the instructor, guest lectures, films, discussions, small group activities, and hands-on exercises. Texts will be supplemented with online readings and handouts.

Course Requirements:
Exams: Two 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.

- Midterm  Tuesday Oct 10 regular class period
- Final  Tuesday Dec 12 9:45-12noon

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. Quizzes will be given announced as well as unannounced. Each quiz may cover material that is assigned in the reading as well as material covered in the lectures and reading for previous days.

Homework: Homework in the form of questions or short papers based on readings will be assigned throughout the term.

Crime Scene Reports: There will be 5 crime scene processing activities held during the semester. These will include scene diagrams, latent fingerprints, photography, blood stain pattern interpretation, and a mock crime scene. Written reports and project materials will be due for each.

General Writing Requirements: Students have differing writing talents, abilities and skills. At the college level, you should be able to express yourself in writing clearly, concisely, and effectively, without grammar, punctuation or spelling errors. Any job you seek in this field will expect no less of you! Your writing assignments for this class will be graded for content as well as clear and correct expression, so please remember to:

- Spell check
- Proofread
- Be sure your answer fully addresses the question being asked
- Use proper APA citation format when necessary

Guidelines for Reports: All reports must contain the following sections: Abstract, Introduction, Materials and Methods, Results, Discussion with Conclusions, References, and Appendices with raw data. All pages must be numbered, initialed and dated and all materials must be firmly secured in the notebooks using a tape seal that has been initialed and dated.
CSI Exercise reports 1-4 are worth 25 points each. The final CSI exercise report is worth 100 points and will include a team presentation. Reports will be graded using both administrative and technical criteria. Details of format and grading of the reports will be provided at the first crime scene session. Grading in general includes the following considerations

- **Administrative Criteria**
  - Is the notebook bound?
  - Is the chain of custody completed for any evidence transfers and documented appropriately?
  - Are proper citations and acknowledgements documented for other individual’s work (e.g. citations/references/teammates whole names)?
  - Is the evidence, properly sealed and stored where indicated?
  - Is the documentation complete?
  - Are all pages numbered, dated and initialed? Is all data properly and securely inserted into the notebooks?
  - Where assigned, do the reports address the questions provided?
  - Are the reports organized with all sections?
  - Is the writing clear and legible?
  - Were all directions followed?

- **Technical and Scientific Criteria**
  - Are data tabulated/summarized and analyzed accurately?
  - Does the data support the statements in the reports?
  - Are the statements within the report and between team members consistent? If not, are discrepancies explained?
  - Is the technical detail provided sufficient and understandable for court?
  - Would the CSI be able to reconstruct the crime scene years from now, based on the documentation?

**Grading**

<table>
<thead>
<tr>
<th>Quiz (3x20pts)</th>
<th>60 points</th>
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<tbody>
<tr>
<td>Homework</td>
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<tr>
<td>CSI Exercises</td>
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<td>Final CSI</td>
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<td>Midterm</td>
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<td>Final exam</td>
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<td>Total required</td>
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**Extra Credit**

An extra credit writing assignment may be offered as well.

**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**
Mary Juno holds an MS in Forensic Science from the University of Strathclyde in Glasgow, Scotland, and a BA in Forensic Anthropology from San Francisco State University. Juno has worked as a CSI at the Oakland Police Department since 2000, and has processed hundreds of major crime scenes. She has taught in the Police Academy and serves as adjunct faculty at Kaplan University and National University.

**Course Add/Drop Statement**
Instructors are permitted to drop students who fail to attend the first scheduled class meeting and who fail to inform the instructor prior to the second class meeting of the reason for any absence and their intention to continue in the class. Some instructors will drop students who do not meet the stated course prerequisites. However, instructors are not required to drop a student from their course. **It is the student’s responsibility to make sure classes are dropped.**
You, the student, are responsible for understanding the policies and procedures about add/drops, academic renewal, withdrawal, etc. found at: [http://sa.sjsu.edu/student_conduct](http://sa.sjsu.edu/student_conduct)

**Academic Integrity Statement**
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 Student Conduct & Ethical Development for disciplinary action which could result in suspension or expulsion from San José State University. The policy on academic integrity can be found at: [http://sa.sjsu.edu/student_conduct](http://sa.sjsu.edu/student_conduct)

To better understand plagiarism and to aid you in making sure that you are not plagiarizing, please see me and/or visit: [http://tutorials.sjlibrary.org/plagiarism/index.htm](http://tutorials.sjlibrary.org/plagiarism/index.htm)

**American with Disabilities Act**
If you need course adaptations or accommodations because of a disability, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires students with disabilities requesting accommodations must register with DRC to establish a record of their disability.

Justice Studies Department
Course Schedule (subject to change)

Dates   Topics
Week 1:  Aug 24

**Introduction to Crime Scene Investigation**
Syllabus, Reading material
Introductions: Your background, my background.
Course Description, requirements, grading etc.
Form crime scene teams. Swap emails/phone numbers.

**Topics**
- Goals of crime scene investigation
- Nature and value of physical evidence
- Qualities of a CSI
- Importance of quality reports

**Assignments**
- Read Fisher Ch 1-3
- Read Houck Article
- Sign in -- send me an email with subject heading “JS112”.
- Purchase individual CSI kit materials
- Take Plagiarism tutorial and quiz. Bring hard copy of quiz results to next class meeting.
  - [http://tutorials.sjlibrary.org/plagiarism/index.htm](http://tutorials.sjlibrary.org/plagiarism/index.htm)

Week 2:  Aug 29/31

**Crime Scene Initial Response**

**Topics**
- Securing the scene
- Locating & identifying physical evidence
- Fragile evidence & its protection
- Initial observations
- Surveys/walk-throughs/systematic searches
- Sources of information at the scene
- Relationships & context of evidence – deciding what is important at a scene and what is not
- Required equipment

**Assignments**
- Read Fisher Appendix A
- Reader Ch 10
  - **Homework:** Do questions at end of Ch 10 in Reader due Sept 5

Week 3:  Sept 5/7

**Methods of Scene Documentation**

**Crime Scene Diagrams**
Topics
• Note-taking
• Reports
• Photography
• Video
• Evidence
• Diagrams

Crime Scene Exercise 1: due Sept 19

Assignments
Read Fisher Ch 4 & 5

Week 4: Sept 12/14
Juno will be away this week.

Film:

Assignments
Meet with CSI team & complete diagrams

Week 5: Sept 19/21
Forensic Evidence

Topics
• Identification and individualization
• Class & individual characteristics of evidence
• Physical fit/matching
• Handling & packaging evidence
• Controls/standards
• Chain of custody

Assignments
Reader Ch 12 & 33
Homework: Do questions at end of Ch 33 in Reader due Sept 26

Quiz #1

Week 6: Sept 26/28
Latent Fingerprints

Topics
• History of Fingerprints
• Basis for Identification
• Will West case
• Types of prints
• Pattern types
• Where to look for fingerprints at a scene
• Surface considerations
• Processing techniques (field vs lab)
• Taking elimination prints

Assignments
Read Fisher pp 93-114, 124-128
Reader: All FP handouts, Ch 17
Homework: Do questions at the end of Ch 17 in Reader due Oct 3
Download/Read PDF: FBI Latent Print Guide (email from instructor)

Week 7: Oct 3/5
Latent Fingerprints, cont.

Topics
• Quality of latent lifts
• How an identification is made
• Automated FP systems -- CAL ID/ALPS
• Other methods of identification

Assignments
Read Fisher pp 128-142

Crime Scene Exercise 2: due Oct 10

Review for Midterm

Week 8: Oct 10/12
Midterm Oct 10
Impression Evidence: Footwear, Tire Tracks, Toolmarks, Bitemarks

Topics
• Value of Impression Evidence
• Different types of impression evidence
• Documentation -- photography, casting
• Comparisons

Assignments
Read Fisher Ch 9
Reader Ch 18, 19
Homework: Do questions at the end of Reader Ch 18 due Oct 17

Week 9: Oct 17/19
Impression Evidence, cont. & Firearms

Topics
• Casting footwear & toolmarks
• Characteristics & nomenclature of firearms
• Ammunition and firearms evidence
• Gunshot residue analysis
• Collection & handling of firearms evidence
• Comparisons
Assignments
Read Fisher Ch 10
Reader Ch 20

Crime Scene Exercise 3: due Oct 24

Week 10: Oct 24/26
Questioned Documents / Trace Evidence

Topics
• Theory of Handwriting
• Collection of Writing Standards
• Signatures
• Typewriters, Printers, Photocopiers
• Examination & Comparisons
• Paint
• Soil
• Hairs & Fibers
• Glass

Assignments
Reader Ch 21 & Handouts
Read Fisher Ch 7
Reader Ch 16

Quiz #2

Week 11: Oct 31/Nov 2
Blood & Blood Stain Pattern Analysis

Topics
• Safety Precautions
• Presumptive tests for blood
• Recording of bloodstains
• Collection & preservation of blood/bloody clothing
• Objectives of BPA
• Blood stain pattern analysis (PPT)

Assignments
Read Fisher Ch 8
Reader Ch 11, Appendix B, & Glossary

Crime Scene Exercise 4: due Nov 7

Week 12 Nov 7/9
Specific Types of Crimes: Arsons
Burglaries
Sexual Assaults

Topics
• Objectives of arson investigation
• Challenges & difficulties
• Collection & preservation of physical evidence
• Origin & cause analysis
• Incendiary devices
• Explosives/Bomb scene investigation

• Three kinds of burglars
• Point & method of entry
• Thinking like a burglar
• Types of evidence encountered at burglaries

• Interviewing the victim
• Medical exams
• Collection of evidence
• Biological evidence

**Assignments**
**Read** Fisher Ch 14  
**Reader** Ch 14 & 24  
**Homework:** do questions at the end of Reader Ch 24  
**due Nov 14**

**Week 13  Nov 14/16**

Specific Types of Crimes: Death Scenes

**Topics**
• Deaths: natural, accidental, intentional
• Suicides: what to look for
• Murder
• Luci Houston case
• Signs of struggle
• Autopsy findings

**Assignments**
**Read** Fisher Ch 16  
**Quiz #3**

**Week 14  Nov 21/Thanksgiving**

Crime Scene Photography

**Topics**
• Writing with light
• 35mm camera & crime scene photography (PPT)
• Video recording
• Orientation/midrange/close up photos
• Flash photography
• Painting with light
• Digital cameras/issues

**Assignments**
**Reader** Ch 10 p 174-175
Read Handouts

Week 15  Nov 28/30
Crime Scene Investigation

Topics
• Putting it all together
• Mock crime scenes

Crime Scene Exercise 5: due Dec 7

Week 16  Dec 5/7
Team presentations

Topics
• The CSI effect
• Ethics
• Court testimony

Assignments
Review for Final

Week 17  Dec 12
Final

CSI Kit

For each person
Bound notebook with page numbers
Tape measure
Ruler and protractor (with metric and inches)
Graph paper (10 sheets)
Permanent sharpie markers (black or blue)
Pens (ball points) & pencils

For each team
Manilla envelopes (5x7, 8x10, coin envelopes – 5 of each size)
Clear packing tape with dispenser
35 mm camera with 3 rolls of film or Digital Camera
Q-tips (box)
Labels (white, adhesive)
Paper bags (various sizes, inc large grocery bags – 10 total)
Plastic ziplock bags (various sizes – 10 total)
Tweezers
Scissors

I will provide
Fingerprint brushes, powder, tape, cards, ink
Blood
Casting materials
Knife
Latex gloves
Masks
Alcohol wipes
Cleaning solutions
Distilled water
Crime Scene Exercises

1. **Sketches**
   - Bird’s Eye
   - Exploded View
   - Elevation
   - Vehicle
   Due Sept 19

2. **Fingerprints**
   - Roll each other’s prints
   - Dust for prints
   Due Oct 10

3. **Casting**
   - Shoe Impressions
   Due Oct 24

4. **Blood Stain Pattern Analysis**
   - Student Designed Experiments
   Due Nov 7

5. **Mock Crime Scene**
   - Evidence List & Measurements
   - Diagram
   - Photos
   - Fingerprints
   - Swabs
   - Report
   Due Dec 7
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• Initial observations
• Surveys/walk-throughs/systematic searches
• Sources of information at the scene
• Relationships & context of evidence - deciding what is
  important at a scene and what is not
• Required equipment

Assignments
Read    http://www.ncjrs.gov/pdffiles1/nij/200160.pdf
Read Fisher Appendix A
Reader Ch 10
Homework: Do questions at end of Ch 10 in Reader due Sept 5

Week 3: Sept 5/7

Methods of Scene Documentation
Crime Scene Diagrams
Topics
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- Reports
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Read Fisher Ch 10
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Crime Scene Exercise 3: due Oct 24

Week 10: Oct 24/26
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Crime Scene Exercise 4: due Nov 7

Week 12 Nov 7/9
Specific Types of Crimes: Arsons
Burglaries
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Topics
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• Medical exams
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Homework: do questions at the end of Reader Ch 24 due Nov 14

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Week 14 Nov 21/Thanksgiving
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- Mock crime scenes

Crime Scene Exercise 5: due Dec 7

Week 16  Dec 5/7
Team presentations

Topics
- The CSI effect
- Ethics
- Court testimony

Assignments
Review for Final

Week 17  Dec 12
Final

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Plastic ziplock bags (various sizes - 10 total)
Tweezers
Scissors

I will provide
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Casting materials
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Latex gloves
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Alcohol wipes
Cleaning solutions
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   Exploded View
   Elevation
   Vehicle

2. Fingerprints  Due Oct 10
   Roll each other’s prints
   Dust for prints

3. Casting  Due Oct 24
   Shoe Impressions

4. Blood Stain Pattern Analysis  Due Nov 7
   Student Designed Experiments

5. Mock Crime Scene  Due Dec 7
   Evidence List & Measurements
   Diagram
   Photos
   Fingerprints
   Swabs
   Report