

CJ 366-03 Forensic Science Spring 2008

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Class Hours: TU/TH, 3:30-4:50
Classroom: CJC- 210
Office Hours: TU 10:00-11:00am;
TH 1:00-3:00pm; or by appointment.

REQUIRED TEXTBOOKS

Gaensslen, R. E., Harris, H. A. & Lee, H. C. (2008). *Introduction to forensic science and criminalistics*. NY: McGraw-Hill. (ISBN: 0-07-298848-7).

The following is a package of the *Forensic Pattern Recognition Book* and the Virtual Lab access card/code. Both are required and each student must have a unique access code for the Virtual Lab. The package will be available at the campus bookstores.

Keppel, R. D., Brown, K. M., & Welch, K. (Eds.). (2007). *Forensic pattern recognition: From fingerprints to toolmarks*. Upper Saddle River, NJ: Prentice Hall. (ISBN: 0536542252).

COURSE DESCRIPTION

This course explores forensic specialties in the criminal justice system. The course is intended to introduce non-science majors to Forensic Science disciplines and techniques. The ways in which the physical and social sciences are applied to law, criminal investigation, and the administration of justice will be addressed. Course topics include: fingerprint analysis, shoe and tire impression analysis, crime scene investigation, criminalistics, DNA analysis, forensic psychology, criminal profiling, scientific expert testimony, medico-legal death investigation, and current events involving forensic science. Students will also work together in groups during hands on exercises in crime scene staging and processing.

LEARNING OBJECTIVES

The course objectives for the student are as follows:

- 1) To develop an understanding of the definition of Forensic Science -- with awareness of academic, professional, and pop cultural perspectives.
- 2) To explore the nexus between science and law.
- 3) To offer an overview of the range of disciplines, specialty areas, and applications generally included under the heading of Forensic Science.
- 4) To foster an informed understanding of scientific principles, terminology, and technical advances crucial to the different areas of Forensic Science.
- 5) To explore issues of ethics and morality at the interface of Criminal Justice and Forensic Science.
- 6) To provide foundation for informed consumption of news media, current events and scientific discourse as they relate to Forensic Science, Law and Criminal Justice.

- 7) To encourage and provide opportunity to articulate learned material via exams, written reports, exercises and/or class discussion.

ATTENDANCE POLICY

Attendance is highly important because discussion groups, and in class assignments will be assessed throughout the session. The student is expected to attend all classes and actively participate in class discussions. Because of this, students must complete the assigned readings and Virtual Lab assignments prior to the scheduled class meeting to contribute to meaningful class discussions.

Class attendance is mandatory and attendance requirements will be followed in accordance with Academic Policy Statement 800401. Attendance will be recorded pursuant to University policy. Penalties for absences will be governed by rules promulgated by the University. A student may be penalized for more than three hours of absence at the discretion of the instructor. It is the responsibility of the student to monitor number of absences.

Accordingly, the instructor will deduct points from the FINAL COURSE GRADE based on the following scale:

**3 unexcused absences = 10 point reduction in final grade
4 unexcused absences = 20 point reduction in final grade
5 + unexcused absences = 30 point reduction final grade**

Student Absences on Religious Holy Day Policy

Section 51.91 (b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observation of a religious holy day, including travel for the purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

University Policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). This request must be made within the first fifteen days of the semester or the first seven days of a summer session in which the absence(s) will occur. The instructor will complete a form notifying the student of a reasonable time frame in which the missed assignments and/or examinations are to be completed. For the official university policy on student absences on religious holy days, see: <http://www.shsu.edu/catalog/scholasticrequirements.html#holyday>.

GRADES

GRADING POLICY:

- A = 90-100%;
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = Below 60%

Exams: (30%)

Students will be required to take a midterm exam and a final exam on the days listed on the course schedule. Each exam is worth 15% for a total of 30 points.

Class Participation and In-Class Labs and Exercises: (10%)

Students will receive grade based upon attendance, participation in class discussions, professionalism during the labs and exercises, and completion of assignments. Students are expected to have read the chapters prior to class lecture/discussion so that any questions may be clarified and meaningful class discussion may be conducted.

In-class/Homework Assignments: In addition to class participation, students are required to complete any in-class and homework assignments which may be assigned. Students are required to regularly access the blackboard portal to check for announcements, assignments, and additional readings for this class.

Virtual Lab Assignments: (10%)

The 12 Virtual Lab Manual assignments will be accessed and completed online outside of the classroom. The purpose of this activity is to reinforce the required readings and give the student an opportunity to apply material from the readings. Each portion of the Virtual Lab assignment must be completed and turned in on the due date. If a student is absent on the day a Virtual Lab assignment is due, the grade for that assignment will be recorded as a zero. Students with excused absences will be allowed to turn in the Virtual Lab assignments the following class meeting. This portion of your course grade will be the average grade of the 12 assignments.

Fingerprint Lab Exercise: (10%)

For the fingerprint lab, students should bring an object from which to lift their own prints off of. Flat surfaces such as picture frames are usually easier for beginners, however, coffee mugs and glasses are useful objects. Please note that metal surfaces are typically more difficult to lift prints from and should not be used as your main surface.

During the lab, students will be expected to roll a 10-print card with their own fingerprints and obtain a successful lift of a latent print. The student will then take their 10 print card and the lift of the latent print and compare them. The student will prepare a short typewritten, professional report discussing the known and questioned latent print comparison.

Staging and Processing Exercise and Reports: (40%)

The following Exercises and written reports will be conducted on two separate days. Any student who will not be in attendance for any portion of the staging or processing exercise due to a health crisis, work commitment, or family emergency (discussed with the instructor in advance) must complete a 5-7 page paper on a forensic science topic to be agreed on by the instructor and the student for each portion of the exercise missed. Absences must be documented (barring extreme emergency) in advance. These exercises are group exercises and your absence not only affects yourself, but others.

More detailed instructions will follow, but the Staging and Processing Exercise reports will consist of the following requirements:

Crime Scene Staging and Report: (10%)

Each team will turn in a preliminary written summary of the crime scene to be staged and the items of evidence to be planted. This report is due February 28th in order to obtain approval from CJ Center for the scenarios and use of the building and equipment. Each group member should turn in an individual staging report from which your personal grade will be determined. The report should contain the following:

- 1) Summary of the important elements of the crime scene your group constructed. Photos and a listing of elements are expected.
- 2) A summary of your individual contribution to the staging report.
- 3) An evaluation of group who processed your crime scene.
- 4) A performance review of each of your team members and their contribution to the staging process.

Crime Scene Processing and Case Report: (20%)

The casebook is a summary of the important elements of the crime scene your team processed. It contains:

- 1) The photo log, copies of photos taken, sketches or diagrams of the crime scene, documented evidence (the evidence log), requests for lab-work and analysis, and methods used to process evidence collected at the crime scene.
- 2) Detailed report of the evidence collected and the manner in which the material would be processed in the lab. This section should be the bulk of the report and should incorporate the material from the course lectures and other forensic sources.
- 3) A performance review of yourself and each of your team members and their contribution to the processing process and preparation of the group report. (This format will be provided to you.)

Staging and Processing Presentation: (10%)

Each Processing Groups will present the crime scene they processed and what the group collected as evidence. In addition, each group will summarize their hypothesis of what happened in the scene. The Staging Groups will present a critique of the processing group, and the actual events that were staged.

As in all aspects of academic work, absolute honesty is expected. The instructor reserves the right to ascertain the integrity of any written work by submitting it to TURNITIN or other screening programs for verification.

ADDITIONAL IMPORTANT INFORMATION

Assignment Submissions: Submit a hard copy to the instructor in class, and electronic copy by email. All submissions should be saved as a rich text file (rtf.) for computer compatibility.

Extra Credit: Extra credit opportunities are not available in this course.

Confidentiality: If you would like to discuss your course performance, an appointment with the instructor may be made at a mutually agreeable time. In order to protect student confidentiality, it is against SHSU policy for an instructor to discuss grades by telephone or through email. Any discussions on student's course performance must be conducted with the instructor in person.

ACADEMIC HONESTY

The Faculty of the College of Criminal Justice expects students to conduct their academic work with integrity and honesty. Acts of academic dishonesty will not be tolerated and can result in the failure of a course and dismissal from the University. Academic dishonesty includes, but is not limited to, cheating on a test, plagiarism, collusion – the unauthorized collaboration with another person in preparing work offered for credit, the abuse of resource materials, and misrepresentation of credentials or accomplishments as a member of the college.

The University's policy on academic honesty and appeal procedures can be found in the manual entitled Student Guidelines, distributed by Division of Student Services (Reference Section 5.3 of the SHSU Student Guidelines). For the official university policy on academic honesty, see: <http://www.shsu.edu/administrative/faulty/sectionb.html#dishonesty>.

ACADEMIC SERVICES AT SHSU

Student Advising and Mentoring Center: Located on the second floor of Academic Building IV (south of the Lee Drain Building, corner of Avenue I and Bowers Blvd.); SAM Center offers academic counseling and enrichment services to all undergraduate and graduate students. The Student Advising and Mentoring Center is a resource dedicated to helping students adjust to academic life at Sam Houston State University. The Center offers advising aid (see Academic Advising), with time management and/or study skills, career testing, tutoring and workshops on an array of academic and technological resources. The SAM Center can be contacted by e-mail

at samcenter@shsu.edu or by telephone, (936) 294-4444. For more information refer to the Catalog.

The **Writing Center** helps all University students, staff, faculty, and community members. It was created to help individuals become better writers and develop more confidence in their writing abilities. To this end, it provides one-on-one and small group writing instruction and one-session workshops throughout the school year. The Writing Center <http://www.shsu.edu/~wctr/> is located in Farrington 111. The Writing Center can be contacted by e-mail at wctr@shsu.edu or by telephone, (936) 294-3680. The **Testing Center**, located at AB4 102 offers a variety of college entrance, vocational, guidance, state-mandated and/or placement exams including Quick THEA, THEA, ACCUPLACER, ACT, SAT, LSAT, GRE, EXCET, DANTE and CLEP testing. The Testing Center can be contacted by e-mail at test.ctr@shsu.edu or by telephone (936) 294-1025.

DISABLED STUDENT POLICY

Students with a disability which affects their academic performance are expected to arrange for a conference with the instructor in order that appropriate strategies can be considered to ensure that participation and achievement opportunities are not impaired. The physically impaired may contact the Director of the Counseling Center as chair of the Committee for Continuing Assistance for Disabled Students by telephone (936) 294-1720. For services for disabled students, see <http://www.shsu.edu/schedule/>.

CLASS CONDUCT

General Conduct: All students are expected to be respectful to others and the instructor at all times. Class discussions may include sensitive and/or controversial topics. Students should be respectful of others' viewpoints and opinions, even those that they may not agree with. Any conduct deemed by the instructor to be disruptive to the class may result in the student's removal from the class. The removal will count as an unexcused absence. Excessive tardiness (2+) without a legitimate excuse may be counted as an unexcused absence at the discretion of the instructor.

Tobacco Products: No tobacco products allowed in the classroom at any time. Violations will result in the student's removal from the class and the removal will count as an unexcused absence.

Use of Electronic Devices in the Classroom:

- Turn off all cell phones, pagers, iPods, and any other distracting electronic device prior to class. Absolutely no text messaging during class! If you need to have access to your cell phone for work, or another emergency purpose, you must set the device to silent or vibrate and notify the instructor prior to the start of class. If a student misuses an electronic device, he or she will be removed from the classroom and the attendance for that class period will be recorded as an unexcused absence.
- Laptops may NOT be used in class unless prior approval is obtained from the instructor.
- Violations of the class conduct policy will result in the student's removal from the class. The removal will count as an unexcused absence.

COURSE SCHEDULE

The anticipated schedule of lectures, readings, assignments, and examinations is as follows:

- January 17 **Introduction to Course**
Team Leader Assignments
- January 22 **Introduction to Forensic Science**
Reading Assignment: Gaensslen Chapters 1-3.
- January 24 **Team Headstart**
Library Assignment: Team leaders will meet with their groups in the library for initial crime scene staging discussion. Groups will discuss ideas for their crime scene and develop an initial plan. Groups should discuss what items may be required, division of labor, and brainstorm the type of crime and evidence may be required . Use this time wisely as a written summary of the crime scene plan will be turned in to the instructor in early March.
- January 29-31 **Crime Scene Analysis & Forensic Psychology**
George Russel Presentation
Reading Assignment: Gaensslen Chapters 3-4
- February 5-7 **Physical Evidence and the Legal System**
Crime Scene Processing and Analysis
Reading Assignment: Gaensslen Chapter 4-5
- February 12-14 **Crime Scene Staging Presentation and Discussion**
Reconstruction Patterns
Staging and Processing Assignments
Reading Assignment: Gaensslen Chapter 5-6, Keppel Chapters 1-3
Assignment: Virtual Lab Fingerprinting Exercise 1 &2
- February 19 **STAGING AND PROCESSING PLANNING DAY**
Assignment: Make arrangements to get together with group to divide up responsibilities for staging and processing exercises.
- February 21 **VIRTUAL LAB**
Assignment: Virtual Lab Blood Spatter Evidence Exercise 1
Assignment: Virtual Lab Fingerprinting Exercise 1
- February 26 **Physical Pattern Evidence**
Fingerprint Analysis
Virtual Lab Blood Spatter Exercise 1 Due
Reading Assignment: Gaensslen Chapter 6, Keppel Chapter 4
Assignment: Virtual Lab Fingerprinting Exercise 2

COURSE SCHEDULE CONTINUED

February 28	Fingerprint Lab Virtual Lab Fingerprinting Exercises 1 & 2 Due Staging Proposals Due
March 4	Midterm Exam
March 11-13	SPRING BREAK
March 18	Impression Evidence Reading Assignment: Gaensslen Chapter 7 Assignment: Virtual Lab Footwear Impressions Exercise 1
March 20	Impression Evidence Lab Virtual Lab Footwear Impressions Exercise 1 Due Reading Assignment: Gaensslen Chapters 8, Keppel Chapter 5 Assignment: Virtual Lab TLC of Ink Exercise 1 Assignment: Virtual Lab Tool Mark Analysis Exercises 1 & 2.
March 25	Questioned Documents Toolmarks and Firearms Virtual Lab TLC of Ink Exercise 1 Due Virtual Lab Tool Mark Analysis Exercises 1 & 2 Due Reading Assignment: Gaensslen Chapter 9 Assignment: Virtual Lab Bloodstain Analysis Exercises 1-3
April 1	Blood and other Biological Evidence Fingerprint Lab Exercise Due Virtual Lab Bloodstain Analysis Exercises 1-3 Due Reading Assignment: Gaensslen Chapter 10 Assignment: Virtual Lab DNA Exercises 1 & 2
April 8	DNA Analysis and Typing Virtual Lab DNA Exercise 1 & 2 Due Reading Assignment: Gaensslen Chapter 11 Assignment: Virtual Lab Arson Detection Exercise 1
April 10	Crime Scene Staging and Processing Day Group 1 – Indoor Staging/Group 3 Indoor Processing Group 2 – Outdoor Processing/Group 4 Outdoor Staging Reading Assignment: Gaensslen Chapters 12-13

COURSE SCHEDULE CONTINUED

- April 15 **Arson and Explosives**
Assignment: Virtual Lab Drug Identification Exercises 1 & 2
Assignment: Virtual Lab Analysis of BA by GLC Exercise 1
- April 17 **Arson and Explosives cont.**
Virtual Lab Arson Detection Exercise 1 Due
Reading Assignment: Gaensslen Chapters 12
Assignment: Virtual Lab Examination of Textile Fibers Exercises 1-3
- April 22 **Drug Analysis and Forensic Toxicology**
Reading Assignment: Gaensslen Chapters 13
Assignment: Virtual Lab Forensic Hair Analysis Exercise 1
Assignment: Virtual Lab Drug Identification Exercise
- April 24 **Crime Scene Staging and Processing Day**
Group 3 – Outdoor Staging/Group 1 Outdoor Processing
Group 4 – Indoor Processing/Group 2 Indoor Staging
- April 29 **Materials Evidence**
Virtual Lab Drug Identification Exercises 1 & 2 Due
Virtual Lab Analysis of BA by GLC Exercise 1 Due
- May 1 **Course Recap and Discussion**
Virtual Lab Examination of Textile Fibers Exercises 1-3
Virtual Lab Forensic Hair Analysis Exercise 1 Due
- May 6 **Group 2 & 3 Presentation, Critique, and Discussion**
The processing reports for groups 2 and 3 and the staging reports for groups 1 and 4 will be formally presented in class during this class session. These presentations will be graded and count towards your final grade.
Staging Report Due (Groups 1 & 4)
Processing Report Due (Groups 2 & 3)
- May 8 **Group 1 & 4 Presentation, Critique, and Discussion**
The processing reports for groups 1 and 4 and the staging reports for groups 2 and 3 will be formally presented in class during this class session. These presentations will be graded and count towards your final grade.
Staging Report Due (Groups 2 & 3)
Processing Report Due (Groups 1 & 4)
- May 13 **Final Exam**
(2:00-4:00 pm)
Grades will be posted by 9:00 AM on Monday, May 19, 2008