

Chemistry 241 Crime Scene Reconstruction & Pattern Analysis Laboratory

Professor:

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Course Overview:

As the principle source of nearly all the physical evidence used during the investigation of a crime, it is critical that a crime scene is handled properly from the onset of the investigation. This involves much more than technicians following procedures to collect the various types of evidence that are commonly encountered.

Keen observational skills combined with a scientific thought process are needed to evaluate the significance of a virtually bottomless pit of physical evidence. It is critical that evidence is documented and collected based upon the formulation of meaningful hypotheses about events that transpired.

In order to fully understand and appreciate the value of this evidence, it is necessary for scientists undertaking this endeavor to have a good general knowledge of forensic science and its methods. In this course, students will begin learning basic concepts of criminalistics using a crime scene focus. Students will learn how to properly document a crime scene, recognize and collect physical evidence, and how to properly interpret physical patterns in reconstruction often associated with crime scenes. Students will also learn about the proper analysis and interpretation of particular types of evidence that contain physical patterns that can be used in individualization. The laboratory will focus on this aspect. The lecture part of the course will provide much of the theoretical knowledge required to complete the exercises.

Good laboratory procedure should be practiced as an integral part of each and every experiment. Care should be exercised to avoid contamination problems. Prior to each exercise, the instructor will discuss preventative contamination measures and any safety concerns the student should be aware of.

Course Objectives:

1. To familiarize the student with the role of the criminalist and other crime scene personnel in crime scene investigation.

2. To introduce the student to application of the scientific method in the managing and reconstruction of a crime scene.

3. To teach basic concepts in criminalistics.

4. To introduce the student to the proper documentation of a crime scene and the handling and collection of various types of physical evidence.

Leaning Outcomes				
	1. To develop competency in the use of techniques typically associated with crime scene reconstruction and pattern analysis.			
	2. To develop good note-taking skills in the examination of physical evidence.			
	3. To emphasis the importance of working as part of a team in crime scene investigation			
Course Assessment:				
	Grades for the laboratory portion of this course will be based upon the 11 laboratory exercises, the mock crime scene, and the moot court. The grade breakdown is as follows:			
	80 % Laboratory Exercises (11 exercises @ 9.1 pts each*) 10 % Mock Crime Scene 10 % Moot Court * a grade benalty will be assessed for all laboratories turned in after the due date			
	Grading:			
	Final Grades will be assigned as follows:			
	A100-93C76-73A-92-90C-72-70			
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Required Readings:				
	Students are expected to be prepared for each laboratory. They are expected to have read the laboratory and any associated readings posted on e-college prior to class.			
<i>Times and Locations:</i>				
	Laboratory will be held on Monday's & Tuesdays from 1:00 pm until 4:00 pm in Miller 21. A detailed week by week breakdown appears at the end of this syllabus.			
Course Notifications:				
	All course notifications will occur through your Cedar Crest College e-mail account. Please check this account regularly.			
<i>Cedar Crest</i> <i>Online:</i>				
	This course will also be supported by an online classroom. You should have received an e-mail prior to the start of the semester detailing how to access and utilize the resources that will be made available to you here. If you have not, please notify your professor. This virtual classroom can be accessed through <u>www.cedarcrestonline.net</u> .			
Necessary Supplies:				
cappico.	Students will be expected to purchase a forensic kit from the bookstore as well as a 1 $\frac{1}{2}$ " 3 ring binder, 10 blank writable compact disks, and 10 CD sleeves for the 3 ring binder. A flash drive is also recommended to assist in transferring digital images.			

Classroom Protocol:

Appropriate classroom behavior is defined and guided by complete protection for the rights of all students and faculty to a courteous, respectful classroom environment. That environment is free from distractions such as late arrivals (students will be deducted one point from each late arrival after the second time), early departures, inappropriate conversations and any other behaviors that might disrupt instruction and/or compromise students' access to the Cedar Crest College education.

Attendance is mandatory throughout the semester. Unexcused absences and excessive lateness will result in a grade penalty.

Community Standards for Academic Conduct:

Academic integrity and ethics remain steadfast, withstanding technological change. Cedar Crest College academic standards therefore apply to all academic work, including, but not limited to, handwritten or computer-generated documents, video or audio recordings, and telecommunications.

As a student at Cedar Crest College, each student shall:

• Only submit work which is her own.

• Adhere to the rules of acknowledging outside sources, as defined by the instructor, never plagiarizing or misrepresenting intellectual property.

• Neither seek nor receive aid from another student, converse with one another when inappropriate, nor use materials not authorized by the instructor.

• Follow the instructions of the professor in any academic situation or environment, including taking of examinations, laboratory procedures, the preparation of papers, properly and respectfully using College facilities and resources, including library and computing resources to ensure that these resources may be effectively shared by all members of the College community.

• Abide by the Cedar Crest Computer Use Policy.

• If a student perceives a violation of the Academic Standards, he/she will go to their instructor.

• If you are unable to resolve the problem with the instructor, you should go to the chair of the department. If you need further assistance after consultation with the instructor and the chair, you should see the Provost.

Honor Philosophy:

The Cedar Crest College Honor Philosophy states that students should uphold community standards for academic and social behavior in order to preserve a learning environment dedicated to personal and academic excellence. Upholding community standards is a matter of personal integrity and honor. Individuals who accept the honor or membership in the Cedar Crest College community of scholars pledge to accept responsibility for their actions in all academic and social situations and for the effect their actions may have on other members of the College community.

Violations of the Academic Honor Code will be dealt with according to the Cedar Crest College Forensic Science Program Procedures and Policy Manual.

Week	Date	Due Date	Topic
1	M 1/19 T 1/20	1/27	Crime Scene Sketches
2	M 1/26 T 1/27	2/03	Advanced Methods of Scene Documentation/ Establishing photography/ Crime Scene Video
3	M 2/02 T 2/03	2/23	Fingerprints/ Close-up Photography
4	M 2/09 T 2/10	2/23	Advanced Photo Techniques
5	M 2/16 T 2/17	N/A	Open Lab
6	M 2/23 T 2/24	3/03	Macro & Micro Casting
7	M 3/02 T 3/03	3/17	Presumptive Testing & Enhancement of Bloodstains
8	M 3/09 T 3/10	N/A	No Lab – Spring Break
9	M 3/16 T 3/17	3/30	Bloodstain Patterns I
10	M 3/23 T 3/24	3/30	Bloodstain Patterns II
11	M 3/30 T 3/31	4/06	Firearms & Tool Marks/ GSR/ Trajectory
12	M 4/06 T 4/07	4/14	Glass Fractures
13	M 4/20* T 4/14	4/27	Trace Evidence Collection
14	M 4/27 T 4/21	N/A	Mock Crime Scene
15	M 5/04 T 4/28	N/A	Moot Court

Laboratory Schedule

*Note: there is no lab on 4/13 for Easter Break