

Professor:

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Assistant Professor – Chemistry & Physical Sciences/ Forensic Science
Office – Miller 10 (Hours: Monday 3-4 pm, & Tuesday 9:30-11:30 am)
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Course***Overview:***

The earliest form of “reality” entertainment has always been the drama that surrounds the administration of justice. Throughout history physical evidence has played a role in assisting the triar of fact determine guilt. In the book of Genesis (4:10), God used blood on Cain’s hands as evidence of guilt. Subsequent trials have used even less physical evidence relying solely on eyewitness accounts.

This course will illustrate the value of physical evidence in its different incarnations. It will also teach an analytical approach to synthesizing information from a number of different sources to form a cogent interpretation.

Course***Objectives:***

Case studies in Forensic Science will:

- Introduce students to different aspects of forensic science.
- Demonstrate the application of the scientific method to the identification, analysis, and interpretation of physical evidence.
- Illustrate how to research current and historical criminal cases.
- Stimulate discussion regarding the public policy of how forensic science is applied.

Learning***Outcomes:***

Student that complete Case Studies in Forensic Science will:

- Develop an appreciation for how science can be used to address legal issues.
- Cultivate their interpretive skills as they learn how to synthesize information from multiple sources.
- Understand how science interacts with the legal system.

Course***Assessment:***

Student progress will be assessed by a number of metrics over the duration of the semester.

- A) Starting the 2nd week, students will be expected to bring a relevant newspaper article to class that pertains to the scheduled lecture. In addition to the article, a written document must be prepared that: 1) briefly outlines

**Course
Assessment:
(Cont.)**

the facts of the case, 2) indicates what potential evidence was present, 3) indicates what evidence was analyzed on the case, and 4) evaluates the value of the evidence that was not examined. These write ups must be turned in at the end of each class.

- B) There will also be two quizzes given that will cover the lecture material.
- C) Each student is also expected to give a 30 minute presentation about a major criminal case. Topics must be selected and cleared with the instructor by the end of the 4th week. These presentations will be well researched and expanded versions of the article exercises done for each class. Presentations should provide a detailed history of the case with written sources as references. They should indicate potential evidence and describe what evidence was analyzed on the case. A thoughtful analysis should also describe the value of the evidence that was not examined.
- D) The last exercise will be a 5 page, written paper evaluating the information that has been provided in the student presentations. Students should evaluate if there is a common thread that runs through all of these cases, or if each case is a discrete element. Based on this observation, students will be requested to make a policy recommendation to improve the quality of how forensic science is practiced.

Grade Breakdown:

18 % Article Assignments	26 % Case Presentation
18 % Quiz 1	10 % Policy Paper
18 % Quiz2	10 % Participation

Grade Assignments:

Final Grades will be assigned as follows:

A	100-93	C	76-73
A-	92-90	C-	72-70
B+	89-87	D+	69-67
B	86-83	D	66-60
B-	82-80	F	59-0
C+	79-77		

**Required
Readings:**

Students will be required to acquire the following text:

Fundamentals of Forensic Science
Houck & Siegel
Elsevier Academic Press, 2006 ISBN 0-12-356762-9

Additional readings will either be provided or posted on e-college

**Times and
Locations:**

Lectures will occur Tuesdays & Thursdays from 8:00 until 9:15 in Science Center 136

Course

Notifications:

All course notifications will occur through your Cedar Crest College e-mail account. Please check this account regularly.

Cedar Crest

Online:

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 www.cedarcrestonline.net.

***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.

Lecture Schedule

<i>Week</i>	<i>Date</i>	<i>Topic</i>	<i>Reading</i>
1	T 8/26	Introduction to Forensic Science & Course Overview	
1	R 8/28	The Nature of Evidence	Chapter 3
2	T 9/02	The Crime Scene	Chapter 2
2	R 9/04	Fire & Explosive Evidence	Chapter 18
3	T 9/09	Trace Evidence	Chapters 12, 15, 16, & 17
3	R 9/11	Impression Evidence	Chapter 22
4	T 9/16	Friction Ridge Patterns	Chapter 19
4	R 9/18	Firearms & Tool Marks	Chapter 21
5	T 9/23	Drug Analysis	Chapter 13
5	R 9/25	<i>Quiz 1</i>	
6	T 9/30	Death Investigation	Chapter 7
<i>6</i>	<i>R 10/02</i>	<i>NEAFS – No Class</i>	
7	T 10/07	Toxicology	Chapter 14
7	R 10/09	Anthropology & Odontology	Chapter 8
<i>8</i>	<i>T 10/14</i>	<i>Fall Break – No Class</i>	
8	R 10/16	Entomology	Chapter 9
9	T 10/21	Biological Evidence	Chapters 10 & 11
9	R 10/23	Bloodstain Patterns	Chapter 10
10	T 10/28	Questioned Documents	Chapter 20
10	R 10/30	Forensic Science & the Law	Chapter 23
11	T 11/04	<i>Quiz 2</i>	
11	R 11/06	Student Presentations	
12	T 11/11	Student Presentations	
12	R 11/13	Student Presentations	
13	T 11/18	Student Presentations	
13	R 11/20	Student Presentations	
14	T 11/25	Student Presentations	
<i>14</i>	<i>R 11/27</i>	<i>Thanksgiving Break</i>	

<i>Week</i>	<i>Date</i>	<i>Topic</i>	<i>Reading</i>
15	T 12/02	Student Presentations	
15	R 12/04	Student Presentations	
16	T 12/09	Student Papers Due	