

**INSTRUCTOR**

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Office Hours: Wednesday 9:30AM – 11:30AM, Thursday 10:00AM – 12:00PM, or by appointment

**COURSE DESCRIPTION**

**FS 230 Forensic Sciences (3)**

Scientific methods applied to the gathering and preservation of physical evidence.

**LEARNING OBJECTIVES**

Forensic science is the natural science branch of the justice system that is concerned with interpreting physical evidence. Investigations proceed by using physical evidence and testimonial evidence to reconstruct past events; victims, suspects, and witnesses provide testimonial evidence. While forensic science is used to resolve civil, criminal, and regulatory matters, this course will focus on criminal investigation. Not surprisingly, forensic science comprises several disparate fields of study and the aim of this course is to provide an introduction to the use of physical evidence in the justice system.

Each student will finish this class with the ability to:

- Define the role of forensic science in civil and criminal investigations (Program Learning Outcome 3)
- Identify and define the various quality assurance strategies in the forensic sciences, including the legal system, ethical conduct, accreditation, and certification (Program Learning Outcome 2)
- Identify the value of physical evidence in a criminal investigation (Program Learning Outcome 3)
- Interpret the data generated from commonly used techniques to analyse physical evidence (Program Learning Outcome 4)

**REQUIRED TEXT**

Houck MM, Siegel JA (2015) Fundamentals of Forensic Science. 3<sup>rd</sup> Edition. Academic Press, Burlington, MA.

**EVALUATION OF STUDENT PERFORMANCE***Examinations*

Assessment is based on the completion of the Ownership Document at the beginning of the semester along with four examinations. These examinations (Zam Time!!!) will cover discrete components of the content and be delivered as oral examinations.

*Ownership Document*

You are also required to complete an Ownership Agreement that is designed to encourage you to think about your future and the reason why you are pursuing a career in forensic science. You are required to complete one Ownership Agreement worth 100 points.

Activity	Points
Ownership Document	100
Exams: Zam Time!	400 @ 100 exam <sup>-1</sup>
<b>Total</b>	<b>500</b>

The grading scale is:

100% - 90%	A
89% - 80%	B
79% - 70%	C
69% - 60%	D
≤ 59%	F

## TENTATIVE SCHEDULE

Week	Monday	Chapter	Subject	Notes
1	16 Jan	1, 3	Introduction, syllabus & roster review The Nature of Evidence	Martin Luther King Jr. Day Ownership Document
2	23 Jan	24 25	Legal Aspects of Forensic Science Quality Assurance Ethics and Professional Practice	<b>Ownership Document Due</b>
3	30 Jan	4 5	Microscopy Light and Matter	
4	6 Feb	2	Crime Scene Investigation <i>Guest Lecturer – Nick Harrison, MFS</i>	<b>ZAM TIME 1</b>
5	13 Feb		<b>NO CLASS</b>	AAFS Meeting – New Orleans
6	20 Feb	19	Friction Ridge Examination <i>Guest Lecturer – Nick Harrison, MFS</i>	Presidents' Day
7	27 Feb	21, 22	Firearms, Toolmarks, Footmarks, Tiremarks	
8	6 Mar	20 10	Questioned Documents Bloodstain Pattern Analysis <i>Guest Lecturer – Wilson Sullivan, MA</i>	<b>ZAM TIME 2</b>
9	13 Mar	10,11	Serology & Genetic Analysis - electrophoresis	
10	20 Mar		<b>NO CLASS</b>	Spring Recess
11	27 Mar	7, 9	Medicolegal Death Investigation Pathology, Taphonomy <i>Guest Lecturer – Charlotte Carter, MFS</i>	Prince Kuhio Day
12	3 Apr	8	Anthropology, Odontology	<b>ZAM TIME 3</b>
13	10 Apr	6	Forensic Chemistry, Separation Methods <i>Guest Lecturer – Kate Perrault, PhD</i>	Good Friday
14	17 Apr	13 14	Illicit Drugs Toxicology	OSAC – Washington DC
15	24 Apr	12	Trace Evidence Hair, Fibers	
16	1 May	15, 16 17	Paint Soil & Glass	
17	9 May		<b>Finals Week – ZAM TIME 4</b>	<b>11:00AM – 1:00PM</b>

**ADDITIONAL DIVISIONAL AND UNIVERSITY POLICES***Electronic Devices*

Use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes at Chaminade, unless specifically permitted by your instructor. Use of cellphones and music devices in laboratories is a safety issue. In addition, use of cellphones and music devices in any class is discourteous and may lead to suspicion of academic misconduct. Students who cannot comply with this rule will be asked to leave class and may be subject to laboratory safety violation fines. You will be asked to leave class and marked absent if you do not comply. This will negatively affect your grade. Please refer any questions to the Dean of Natural Sciences and Mathematics.

*ADAA Statement*

Pursuant to several federal and state laws, including the Americans with Disabilities Act of 1990, as amended by the ADA Amendments Act of 2008, and Section 504 of the Rehabilitation Act of 1973, all qualified students with disabilities are protected from discrimination on basis of disability and are eligible for reasonable accommodations or modifications in the academic environment to enable them to enjoy equal access to academic programs, services, or activities. If a student would like to determine if they meet the criteria for accommodations, they should contact the Counseling Center at 808-735-4845 for further information.

*Attendance & Tardiness*

Students are expected to attend regularly all courses for which they are registered. Students should notify their instructors when illness or other extenuating circumstances prevents them from attending class and make arrangements to complete missed assignments. Notification may be done by emailing the instructor's Chaminade email address, calling the instructor's campus extension or by leaving a message with the instructor's division office (Natural Sciences and Mathematics +1 (808) 440-4204). It is the instructor's prerogative to modify deadlines of course requirements accordingly. Any student who stops attending a course without officially **withdrawing** may receive a failing grade.

Unexcused absences equivalent to more than a week of classes may lead to a grade reduction for the course. Any unexcused absence of two consecutive weeks or more may result in being **withdrawn** from the course by the instructor, although the instructor is not required to **withdraw** students in that scenario. Repeated absences put students at risk of failing grades.

*Policy on Make-Up Tests*

Make-up exams will not be given, due to the team-oriented structure of Zam Time. You are required to inform your Zam Team and Dr. Carter of your absence as soon as possible.

*Policy on Communication*

The University provides a Chaminade email address for all students. Official Chaminade communications will be sent to the students' Chaminade email address and instructors will use only this email to communicate with students. It is the responsibility of the student to check their email frequently. Report email-related problems to the Helpdesk at 808-735-4855 or [helpdesk@chaminade.edu](mailto:helpdesk@chaminade.edu).

*Laboratory Safety Information*

The following guidelines are established to provide instructions in maintaining safety for students, staff, and faculty while using any of the science laboratories at Chaminade University. The Division of Natural Sciences and Mathematics (NSM), along with the University Environmental Safety Office are responsible for enforcing the regulations set forth in the current Student Handbook. Queries should be addressed to: Dean of Natural Sciences and Mathematics (808) 440-4204; Environmental Safety Officer (808) 739-4811

*Title IX Declaration*

Chaminade University of Honolulu recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct, physical and/or psychological abuse will NOT be tolerated at CUH. If you have been the victim of sexual misconduct, physical and/or psychological abuse, we encourage you to report this matter promptly. As a faculty member, I am interested in promoting a safe and healthy environment, and should I learn of any sexual misconduct, physical and/or psychological abuse, I must report the matter to the Title IX Coordinator. Should you want to speak to a confidential source you may contact the following:

- Chaminade Counseling Center (808) 735-4845.

*Academic Honesty*

Students are expected to have read and to abide by the "Student Rules of Conduct" which are available in your copy of Chaminade University's Student Handbook. Cheating in the form of plagiarism, collusion, deception and will not be tolerated and will negatively affect your grade.

The instructor may modify elements of this syllabus according to the operational needs of the class.