



Course Syllabus

Chaminade University Honolulu

3140 Waiialae Avenue - Honolulu, HI 96816

www.chaminade.edu

Course Number: FS 230

Course Title: Forensic Sciences

Department Name: Forensic Sciences

School Name: Natural Sciences and Mathematics

Term: Spring 2022

Course Credits: 3

Class Meeting Days: Monday, Wednesday, Friday

Class Meeting Hours: 1:30PM – 2:20PM

Class Location: 203 Henry Hall



Instructor Name: David O. Carter

Email: david.carter@chaminade.edu

Phone: 808.739.8352

Office Location: 207A Eiben Hall

Office Hours: Meetings during Office Hours can be scheduled through Google Calendar. My Office

Hours are Monday & Friday 2:30PM – 4:30PM

 Thursday 10:00AM – 12:00PM

University Course Catalog Description

FS 230 Forensic Sciences (3) Survey of scientific methods applied to the collection, analysis and preservation of physical evidence as it is used from the crime scene to the courtroom; quality assurance, ethics, professional practice.

Course Learning Outcomes (CLO)

Forensic science is the natural science branch of the justice system. It 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 introduce the use of physical evidence in the justice system.

Each student will finish this class with the ability to:

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

REQUIRED LEARNING MATERIALS

This class requires a textbook that will be complemented with lectures. The lectures are based on the textbook chapters, with some additional material that is not included in the book. Most of this additional material is related to medicolegal death investigation and forensic taphonomy. My advice is to read the chapters and attend the lectures.

Textbook

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

Canvas

Canvas will be used to store class materials, submit assignments, and access your grade. Canvas will also be used for email communication but you can also email me directly at david.carter@chaminade.edu

Google Drive

This drive will be used to house larger files, if necessary.

EVALUATION OF STUDENT PERFORMANCE

All grades will be posted in Canvas within one week of assignment/exam submission. Attendance grades will be posted to Canvas on a weekly basis. Your grade will be kept current all semester. You are encouraged to contact me at david.carter@chaminade.edu at any time to discuss your grades. I strongly encourage you to check your grades regularly. All assignments have firm due dates and your score will be penalized 10 points for each day late.

Attendance & Participation

Classes are scheduled to meet in person every Monday, Wednesday, and Friday unless indicated otherwise. You will earn one point per class attended. Please be aware that the total attendance points can change if a class period is cancelled due to illness, weather, or some other reason.

Examinations

You are required to complete four exams via Canvas. These exams are modelled after forensic science certification and accreditation exams, which means they are in multiple choice format including true/false. Each exam is worth 50 points. Unexcused missed exams will be penalized 10 points per day late.

Ownership Document

You are also required to complete an Ownership Document 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 Document worth 80 points. Download this document from Canvas, answer the questions, and email them to me at david.carter@chaminade.edu before 4:30PM on Friday, 21 January 2022. Assignments are submitted via Canvas in .docx or .pages format. This assignment is worth 80 points, 10 points per question answered. Late submissions will be penalized 10 points per day late.

Silvers Words

Words are important. They are at least worth their weight in silver. You will use the Discussion Board to introduce yourself to your classmates and answer the following questions:

1. What is your name?
2. Where are you from?
3. What is your major? Do you have a minor?
4. Why do think forensic science is interesting?
5. What type of career would you like to establish?

Your initial posting must answer those questions. You must also reply to at least one other classmate. Your reply should identify things that you have, or don't have, in common with your classmate. These replies should be 200 words or less. You need to complete your post and reply by 4:30PM on Friday, 21 January 2022. Late submissions will be penalized 10 points per day late.

| Activity | Points |
|--------------------|--------------------------|
| Exams | 200 (50 points per exam) |
| Ownership Document | 80 |
| Silvers Words | 30 (15 points per post) |
| Attendance | 35 (1 point per class) |
| Total | 345 |

| Points | % | Letter Grade |
|---------------|----------|---------------------|
| 345 – 309 | 100 – 90 | A |
| 308 – 275 | 89 – 80 | B |
| 274 – 240 | 79 – 70 | C |
| 239 – 206 | 69 – 60 | D |
| 205 – 0 | 59 – 0 | F |

TENTATIVE SCHEDULE

| Week | Monday | Chapters | Subject | Notes |
|--|--------|--------------|---|--|
| MODULE 1: Science and Investigation | | | | |
| 1 | 10 Jan | 1,3 | Introduction and Syllabus Review Forensic Sciences, Nature of Evidence | Welcome! |
| 2 | 17 Jan | 24 | Ethics and Professional Practice | Dr Martin Luther King Jr Ownership Document Due Silvers Words Due |
| 3 | 24 Jan | 25 | Legal Aspects of Forensic Sciences | |
| 4 | 31 Jan | 2 | Crime Scene Investigation | Exam 1 |
| MODULE 2: Pattern Evidence | | | | |
| 5 | 7 Feb | 19, 21 | Friction Ridge Examination Firearms and Toolmarks | Withdraw No Record Deadline (11 Feb) |
| 6 | 14 Feb | 10, 22 | Pattern Evidence Impression Evidence | |
| 7 | 21 Feb | | Classes Cancelled | AAFS – Seattle, WA |
| 8 | 28 Feb | 10, 22 | Bloodstain Pattern Analysis | Exam 2 |
| MODULE 3: Biological Evidence | | | | |
| 9 | 7 Mar | 10, 11 | Forensic Biology Serology and DNA Analysis | |
| 10 | 14 Mar | 7, 11 | Serology and DNA Analysis Medicolegal Death Investigation | Withdraw Deadline (18 Mar) |
| 11 | 21 Mar | | Classes Cancelled | Spring Break |
| 12 | 28 Mar | 7, 8, 9 | Medicolegal Death Investigation Taphonomy, Anthropology | Exam 3 Pre-Registration for Fall 2022 |
| MODULE 4: Chemical Evidence | | | | |
| 13 | 4 Apr | 13, 14, 18 | Forensic Chemistry Drug Chemistry | |
| 14 | 11 Apr | 15, 17 | Toxicology Trace Evidence | |
| 15 | 18 Apr | 17 | Trace Evidence Soils, Glass | |
| 16 | 25 Apr | 12, 15 16 | Hairs, Fibers Paint | |
| 17 | 2 May | | Finals Week Monday, 11:00AM – 1:00PM | Exam 4 |

Instructor and Student Communication

Questions for this course can be emailed to the instructor at david.carter@chaminade.edu. Online, in-person and phone conferences can also be arranged.

Program Learning Outcomes (PLO)

Upon completion of the degree program in Forensic Sciences, students will be able to:

1. Apply the scientific method in an adaptive and mindful manner
2. Use techniques for recognition, documentation, analysis, and interpretation of physical evidence
3. Implement quality assurance programs, incorporating ethics and professional practice, to act as stewards of justice and peace throughout the broader community
4. Communicate disciplinary knowledge to diverse audiences

Marianist Characteristics & Native Hawaiian Values

Education is an integral value in both Marianist and Native Hawaiian culture and this class represents one component of your education at Chaminade University of Honolulu. Both recognize the transformative effect of a well-rounded, value-centered education on society, particularly in seeking justice for the marginalized, the forgotten, and the oppressed, always with an eye toward God (Ke Akua). This is reflected in the 'Olelo No'eau (Hawaiian proverbs) and Marianist core beliefs:

1. Educate for Formation in Faith (Mana) E ola au i ke akua ('Olelo No'eau 364) May I live by God
2. Provide an Integral, Quality Education (Na'auao) Lawe i ka ma'alea a kū'ono'ono ('Olelo No'eau 1957) Acquire skill and make it deep
3. Educate in Family Spirit ('Ohana) 'Ike aku, 'ike mai, kōkua aku kōkua mai; pela iho la ka nohana 'ohana ('Olelo No'eau 1200) Recognize others, be recognized, help others, be helped; such is a family relationship
4. Educate for Service, Justice and Peace (Aloha) Ka lama kū o ka no'eau ('Olelo No'eau 1430) Education is the standing torch of wisdom
5. Educate for Adaptation and Change (Aina) 'A'ohē pau ka 'ike i ka hālau ho'okahi ('Olelo No'eau 203) All knowledge is not taught in the same school

This class will focus on an education in the forensic sciences as an education in service, justice, and peace. This characteristic will be obvious to you very early in the class when we discuss all of the rules associated with the collection, analysis, and interpretation of physical evidence. You will learn that most forensic scientists are public servants that conduct science for the benefit of society. Forensic scientists analyze, and speak for, evidence so that justice can be served and peaceful society can flourish.

Academic Conduct Policy

From the Undergraduate Catalog:

Any community must have a set of rules and standards of conduct by which it operates. At Chaminade, these standards are outlined so as to reflect both the Catholic, Marianist values of the institution and to honor and respect students as responsible adults. All alleged violations of the community standards are handled through an established student conduct process, outlined in the Student Handbook, and operated within the guidelines set to honor both students' rights and campus values.

Students should conduct themselves in a manner that reflects the ideals of the University. This includes knowing and respecting the intent of rules, regulations, and/or policies presented in the Student

Handbook, and realizing that students are subject to the University's jurisdiction from the time of their admission until their enrollment has been formally terminated. Please refer to the Student Handbook for more details. A copy of the Student Handbook is available on the Chaminade website.

Technical Assistance for Canvas Users

- Get started and find help on specific topics at the [Canvas Community](#)
- Contact the Chaminade IT Helpdesk for technical issues: helpdesk@chaminade.edu, or call (808) 735-4855

Tutoring and Writing Services

Chaminade is proud to offer free, one-on-one tutoring and writing assistance to all students. Tutoring and writing help is available on campus at Kōkua `Ike: Center for Student Learning in a variety of subjects (including, but are not limited to: biology, chemistry, math, nursing, English, etc.) from trained Peer and Professional Tutors. Please check Kōkua `Ike's website (<https://chaminade.edu/advising/kokua-ike/>) for the latest times, list of drop-in hours, and information on scheduling an appointment. Free online tutoring is also available via Smarthinking. Smarthinking can be accessed 24/7 from your Canvas account. Simply click Account – Notifications – Smarthinking. For more information, please contact Kōkua `Ike at tutoring@chaminade.edu or 808-739-8305.

Cell phones, tablets, and laptops

Out of consideration for your classmates, please set your cell phone to silent mode during class. Students are encouraged to bring laptops or tablets to class as the instructor will assign online activities and readings that will require the use of a laptop or tablet. Laptops and tablets should not be misused, such as checking distracting websites. Use your best judgment and respect your classmates and instructor.

Disability Access

Chaminade University of Honolulu is committed to providing reasonable accommodations for persons with documented disabilities. Any student who believes that they may need accommodations must first register with the Counseling Center. Registration with the Counseling Center begins the process of determining whether the student meets the requirements for a documented disability in accordance with the Americans with Disabilities Act (ADA), even if accommodations may not be needed for this particular class. The contact information for the Counseling Center is (808) 735-4845, 739-4603, or by email at counselingcenter@chaminade.edu. It is important for students to contact the Counseling Center as soon as possible so that accommodations are implemented in a timely fashion and to allow your instructor(s) to plan accordingly. Students will be required to provide written documentation to the Counseling Center in order for a determination to be made as to whether the requirements for a documented disability under the ADA are met.

Failure to provide written documentation through the Counseling Center will prevent your instructor from making the necessary accommodations, instructors cannot provide accommodations unless they have been prescribed by the Counseling Center. Once you have received an official notice of accommodations from the Counseling Center, it is also very important to discuss these accommodations directly with your instructor so that they can better support your needs. If you have specific questions regarding your individualized accommodations you may speak directly with your instructor and/or you may contact the Counseling Center.

Title IX Compliance

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. If you or someone you know has been harassed or assaulted, you can find the appropriate resources by visiting Campus Ministry, the Dean of Students Office, the Counseling Center, or the Office for Compliance and Personnel Services.

Attendance Policy

The following attendance policy is from the Undergraduate Catalog.

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 main office. 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.

Students with disabilities who have obtained accommodations from the Chaminade University of Honolulu ADA Coordinator may be considered for an exception when the accommodation does not materially alter the attainment of the learning outcomes. Federal regulations require continued attendance for continuing payment of financial aid. When illness or personal reasons necessitate continued absence, the student should communicate first with the instructor to review the options. Anyone who stops attending a course without official withdrawal may receive a failing grade or be withdrawn by the instructor at the instructor's discretion.