



COLLEGE OF ART AND SCIENCES

School of Justice Studies

Department of Forensic Sciences and Technology

FS 471L-01, Forensic Reconstruction Laboratory

Henry Hall Lab 6, Th 2:30-5:20 AM | Credits: 1 | Section: 1 | Term: Fall 2026

Instructor Information

Instructor	Carlos A. Gutiérrez Ayala, Ph.D. This laboratory employs scientific techniques and knowledge acquired during lectures to reconstruct cases or cold cases based on physical evidence and information obtained during investigations, thereby generating scientifically sound conclusions.
	
Email	Carlos.gutierrez@chaminade.edu
Phone	(808) 739 8352
Office Location	207A Eiben Hall
Office Hours	Mondays and Fridays 9:00 – 10:00AM Thursdays and Fridays 11:30AM – 12:30PM

Communication

You can also request a meeting outside of Office Hours. To do so, send an email to carlos.gutierrez@chaminade.edu. Include multiple dates and times that you are available to meet. (Will respond in 24hrs/48hrs)

School & Department

School	School of Justice Studies, Department of Forensic Sciences and technology
Location	Eiben Hall 207
Phone	(808) 440 4204
Questions?	Contact your instructor or the School of Justice Studies

Course Description & Materials

Catalog Description

FS 471L Forensic Reconstruction Laboratory (1)

Survey of scientific techniques applied to reconstruct cases or cold cases based on physical evidence and the information obtained during the investigation, to generate conclusions scientifically.

Pre-Requisites: EN-102, COM-101, FS-340, FS-455, **with a grade of "C" or better**, and Senior Standing.

Co-requisites: 471

Course Snapshot

Modality	Face-to-face
Meeting Location	Henry Hall Laboratory 6
Meeting Days/Times	Th 2:30 pm to 5:20 am
Time Allocation	This one-credit course requires 45 clock hours of students' engagement per the official CUH Credit Hour Policy. Students enrolled in this course are expected to spend 37.5 hours in the Laboratory. These laboratory hours include Lab activities and exams. There will be an additional 7.5 hours of work required beyond what is listed here (course reading and homework assignments), averaging 0.5 hours each week.
Required Materials	1. Gardner R. M. and Bevel T. (2020) <i>Practical Crime Scene Analysis and Reconstruction</i>. CRC Press. Boca Raton, FL, USA. ISBN: 9781420065510 2. Walton R.H. (2017) <i>Cold Cases Homicides, Practical Investigative Techniques</i>. CRC Press., Boca Raton, FL, USA. ISBN: 9781482237900 CrimePad Software, Instructor will provide the information Pix4D App, Instructor will provide the information
Recommended Items	-Edward Robinson, <i>Crime Scene Photography</i>, 3rd Edition, Academic Press, 2016, ISBN: 9780128027646 -Spitz and Fisher, <i>Medicolegal Investigation of Death, Guidelines for the Application of Pathology to Crime Investigation</i>, Fifth Edition, Charles Thomas Publisher, 2020, ISBN 9780398093129. -W. Jerry Chisum and Brent E. Turvey, <i>Crime Reconstruction</i>, 2nd Edition, Academic Press, ISBN 9780123864604.
Canvas and Google Drive	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 carlos.gutierrez@chaminade.edu

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

Learning Outcomes

Program Learning Outcomes (PLOs)

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. 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.

Upon completion of the B.S. in Forensic Sciences, the student 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.

Course Learning Outcomes (CLOs)

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. 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.

Upon completion of the FS 340 course, the student will be able to:

1. Define the role of forensic science in criminal investigation.
2. Identify physical evidence and the information it can provide.
3. Describe quality assurance strategies in the forensic sciences, including the legal system, accreditation, and certification.
4. Describe acceptable professional conduct in the forensic sciences.

Marianist Values

This class represents one component of your education at Chaminade University of Honolulu. An education in the Marianist Tradition is marked by five principles and you should take every opportunity possible to reflect upon the role of these characteristics in your education and development:

1. Education for formation in faith.

2. Provide an integral, quality education.
3. Educate in family spirit.
4. Educate for service, justice and peace, and integrity of creation.
5. Educate for adaptation and change.

Through this course, students will receive an education based on Marianist values, with strength in education and integral and quality formation. These are strong foundations for serving the community and being prepared to bring justice and peace to society.

Native Hawaiian Values

Education is central to both Marianist and Native Hawaiian culture — both seek transformative, value-centered learning that serves the marginalized. This is reflected in the ‘Ōlelo No‘eau (Hawaiian proverbs) below:

1. **Educate for Formation in Faith (Mana):** E ola au i ke akua (‘Ōlelo 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 (‘Ōlelo No‘eau 1957) — Acquire skill and make it deep.
3. **Educate in Family Spirit (‘Ohana):** ‘Ike aku, ‘ike mai, kōkua aku kōkua mai (‘Ōlelo No‘eau 1200) — Recognize others, be recognized, help others, be helped.
4. **Educate for Service, Justice and Peace (Aloha):** Ka lama kū o ka no‘eau (‘Ōlelo No‘eau 1430) — Education is the standing torch of wisdom.
5. **Educate for Adaptation and Change (Aina):** ‘A‘ohe pau ka ‘ike i ka hālau ho‘okahi (‘Ōlelo No‘eau 203) — All knowledge is not taught in the same school.

Alignment of Course Learning Outcomes

	CLO 1	CLO 2	CLO 3	CLO 4
Marianist Values	x	x	x	x
PLOs	x	x	x	x
Native Hawaiian Values	x	x	x	x
Gen Ed Outcomes (if applicable)				

Attendance & In-Class Participation

Attendance Policy

Unless otherwise stated, classes are scheduled to meet in person between 10:30-11:20 AM on Mondays, Wednesdays, and Fridays in Eiben Hall room 201. Students will earn **points per class attendance** starting on August 31st, 2026. Please be aware that the total attendance points will be changed if a class period is cancelled due to extenuating circumstances (ex. Instructor illness, extreme weather).

Quick Reference — Absence Thresholds:

Excused Absence	An absence where the instructor was notified (preferably 24 hours prior to the course) and was due to a legitimate reason (ex. Illness, family emergency, accident). Please note that proof may be requested (ex. Doctor's note).
Unexcused Absence	An absence where the instructor was NOT notified and/or was due to an illegitimate or unacceptable reason.
Grade Penalty	Unexcused absences will result in a loss of attendance-points for a given lecture. <i>Four or more unexcused absences will result in an additional 10% deduction from the student's final grade.</i>
Late Arrival / Early Departure	If a student is late by 5-10 minutes, they will lose 5-attendance points. If they are more than 10 minutes late, they will lose all 15 attendance points for that lecture (unless a legitimate reason is provided).

In-Class Participation Expectations

Active, respectful engagement is essential. Students are expected to come prepared and contribute meaningfully to discussions, activities, and collaborative work.

Students are expected to:

- Come prepared — complete readings and activities before each session.
- Participate actively in discussions and group work, demonstrating critical thinking.
- Engage respectfully and honor diverse perspectives.
- Use personal devices for course purposes only unless otherwise directed.
- Submit work by established deadlines to support course pacing.

Course Activities (1,110 points)

Participation (100 Points)	Active participation (100 points) Students are expected to actively listen, think and critique during oral presentations. To encourage this, students will be required to participate during questions periods by either: 1. Asking a relevant question 2. Providing constructive criticism or feedback 3. Sharing additional thoughts or knowledge Students will be required to do one above at least three (3) times throughout the semester.
Examinations (500 points)	a. Lab activities: (220 points) 11 Weekly activities based on the knowledge obtained from the lecturers (FS 471). After you complete the weekly laboratory activities, you will earn 20 points per Lab. If the

	student has an unexcused absence and misses the laboratory, the laboratory will be evaluated with 0 points for that missing lab. b. Midterm exams: (200 points) During this Laboratory, you will have <i>two midterm exams</i> (two Team case analysis presentations), each worth 100 points. The team presentation will be evaluated as a whole. c. Final Exam: (300 points) The individual final lab exam will be a forensic analysis of an open or cold case. The student must apply all the knowledge gained during the semester and present their findings using the forensic reconstruction methodology. This final exam is worth 300 points. <i>Unexcused absences from any midterm or final exam will be evaluated with 0 points.</i>
Attendance (280 points)	Labs are scheduled to meet in person every Thursday unless indicated otherwise. You will earn 20 points per class attended starting Thursday, 27 August. Please be aware that the total attendance points will change if a class period is canceled due to illness, weather, or another reason. At the beginning of this Lab, the class will be divided into Teams. Each team will remain until the end of the semester. <i>THIS LABORATORY IS BASED ON TEAMWORK.</i> If you miss an exam and your absence is considered unexcused, you will be given a 0 point for attendance <i>and</i> for the exam.

Course Policies

Late Work	Assigned presentation dates cannot be missed. If an unforeseen circumstance causes you to miss your date, please contact your instructor as soon as possible in order to discuss potential rescheduling.
Make-Up Work & Extra Credit	If you require make-up or extra credit work, please discuss this with your instructor at least one month before finals week (December 7-10th, 2026). No additional assignment will be given for unexcused absences or lack of interest/participation in the course.

Final Grades

Presentation, Participation, and Attendance grades will be entered in Canvas at most 1 week after their due date. You are encouraged to regularly consult your grades in Canvas throughout the semester, and to reach out to your instructor to discuss your progress and performance. Final grades will be submitted to Self-Service (selfservice.chaminade.edu).

Grade	Range	Points
A	90% and above	1,100 – 990
B	80–89%	989 – 791
C	70–79%	790 – 553
D	60–69%	552 – 331
F	59% and below	< 330

Important Information

Academic Honesty

Academic honesty is an essential aspect of all learning, scholarship, and research. It is one of the values regarded most highly by academic communities throughout the world. Violations of the principle of academic honesty are extremely serious and will not be tolerated.

Students are responsible for promoting academic honesty at Chaminade by not participating in any act of dishonesty and by reporting any incidence of academic dishonesty to an instructor or to a University official. Academic dishonesty may include theft of records or examinations, alteration of grades, plagiarism, **and unauthorized and/or undisclosed AI usage**, in addition to more obvious dishonesty. See catalog section *Student Use of Artificial Intelligence in Academic Work* for further information.

Questions of academic dishonesty in a particular class are first reviewed by the instructor, who must make a report with recommendations to the Director of the Academic College. Punishment for academic dishonesty will be determined by the instructor, Director, and the Dean of Academic College and may include an “F” grade for the work in question, an “F” grade for the course, academic notice, or dismissal from the University.

AI (Artificial Intelligence) Statement

Chaminade University recognizes the increasing role of artificial intelligence (AI) technologies in academic and professional environments. AI encompasses, but is not limited to, generative AI platforms, automated writing or content generation software, coding assistants, and similar tools. Students must ensure all submitted work genuinely reflects their knowledge and effort. Using AI to produce or significantly complete graded assignments, exams or other academic tasks – defined as use that substitutes for or substantially replaces a student’s own

analysis, reasoning or written expression – without explicit instructor approval is considered academic misconduct and will be dealt with according to the University's Academic Honesty Policy.

If an instructor has reasonable grounds to question whether submitted work genuinely reflects a student's own knowledge, authorship, or mastery of course material — or whether it meets the course's expectations for AI use — the instructor may require the student to provide additional or alternative evidence of authorship and content mastery. Such evidence may include drafts, notes, revision history, source materials, process explanations, oral discussion, in class work, or completion of an alternative assessment. A student's refusal or inability to provide such evidence may be considered, along with other available information, in evaluating whether the work meets course requirements and stated learning outcomes. Instructors will not rely solely on AI detection software or other automated tools in making grading or academic integrity determinations. Such determinations will be based on the totality of the available information and handled in accordance with applicable University policies and procedures. See the catalog section *Student Use of Artificial Intelligence in Academic Work* for further information.

Title IX and Nondiscrimination

Chaminade University of Honolulu is committed to providing a learning, working and living environment that promotes the dignity of all people, inclusivity and mutual respect and is free of all forms of sex discrimination and gender-based violence, including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence, and stalking. As a member of the University faculty, I am required to immediately report any incident of sex discrimination or gender-based violence to the campus Title IX Coordinator. For pregnant and parenting students, I am also obligated to provide you with similar resources for support and protections available to you. My goal is to make sure that you are aware of the range of options available to you and have access to the resources and support you need.

Contact information and reporting options: chaminade.edu/titleix/nondiscrimination/. File a report via the [Campus Incident Report Form](#).

Nondiscrimination Policy and Notice of Nondiscrimination

The university is committed to comply with all State and Federal statutes, rules, and regulations which prohibit discrimination. The university is committed to a policy of nondiscrimination on the basis of race, sex, gender identity and expression, age, religion, color, national origin (including shared ancestry and ethnic characteristics), ancestry, citizenship, disability, genetic information, marital status, breastfeeding, arrest and court record (except as permissible under State law), sexual orientation, or status as a covered veteran. Inquiries about Title IX or general Civil Rights concerns may be referred to the University's Title IX Coordinator, the U.S. Department of Education's Office for Civil Rights, or both and contact information may be found [HERE](#). *On-campus Confidential Resources may also be found here at [CAMPUS CONFIDENTIAL RESOURCES](#).*

The University's Nondiscrimination Policy and Grievance Procedures can be located on the University webpage at: <https://chaminade.edu/compliance/title-ix-nondiscrimination-policies-procedures/>.

To report information about conduct that may constitute sex discrimination or make a complaint of sex discrimination under Title IX, please refer to the [Campus Incident Report form](#). Chaminade University of Honolulu prohibits sex discrimination in any education program or activity that it operates.

The NOTICE of NONDISCRIMINATION can be found here: [Notice of Nondiscrimination](#).

Student with Disabilities Statement- Kōkua 'Ike

Accessibility Services recognizes disability as a valued aspect of diversity and ensures equal access to the educational environment in accordance with Section 504 of the Rehabilitation Act; the Americans with Disabilities Act, as amended; and the principles and professional standards of the Association on Higher Education and Disability. Access is supported through reasonable accommodations and referrals to campus and community resources.

Appointments with the Accessibility Services Coordinator are available through Stellic at <https://chaminade.stellic.com> and may be held virtually or in person. Drop-in appointments are also welcome.

Students seeking support must meet with the Accessibility Services Coordinator as early as possible, even if they are unsure whether they have appropriate documentation of their disability or its impacts. The Accessibility Services Coordinator prioritizes listening to students's experiences and will discuss any documentation needs during the initial intake meeting. Students may seek support at any time.

Learn more at <https://chaminade.edu/ada-accommodations>

Assessment of Student Work

Chaminade University may use student work anonymously to assess achievement of course, program, and institutional learning outcomes as part of ongoing quality improvement efforts.

United Nations Sustainable Development Goals "SDG"



This course covers the UN *SDG 16: "Peace, Justice and Strong Institutions"*, Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

Campus Resources & Support Services

The following resources are available to all Chaminade students. Reach out early — these services exist to support your success.

Resource	Description	Contact / Website
Accessibility Services (Kōkua 'Ike)	Accommodations under Section 504 and ADA. Contact early — appointments via Stellic, virtual or in person.	ada@chaminade.edu chaminade.edu/ada-accommodations
Tutoring & Academic Coaching (Kōkua 'Ike)	Tutoring and Academic Coaching Services support students' progression toward their academic, personal, and professional goals with clarity and intention. Services include individualized support in English, math, nursing, sciences, and social sciences, as well as guidance in developing goals and study strategies.	chaminade.edu/tutoring-academic-coaching-services
Career Services	Career Services supports students throughout their career journeys. Services include individualized job search strategy coaching, resume reviews, job interview coaching, and access to career-related resources and opportunities.	chaminade.edu/career-services
Basic Needs Resources	Support for food insecurity, housing instability, and other basic needs.	chaminade.edu/basic-needs/
Title IX / Nondiscrimination	Reporting and support for sex discrimination and gender-based violence. Campus Incident Report Form available online.	chaminade.edu/titleix/resources-and-support/

Resource	Description	Contact / Website
Hazing Prevention	Confidential support, crisis intervention, and reporting for any type of abuse including hazing.	hazingpreventionnetwork.org/athlete-helpline/
Campus Safety & SafeSwords	Security escort service for anyone who feels unsafe walking alone on campus at any time of day. Call security and a professional will escort you to your destination.	chaminade.edu/student-life/security/campus-safeswords-program/
CUH Alert Emergency Notification	Emergency text system. Register your cell number via the Chaminade portal and confirm the text to complete enrollment.	chaminade.edu

Weekly Course Schedule

Note: The instructor reserves the right to modify this schedule. Changes will be announced in class and posted to Canvas.

Week	Date	Topics / Activity	Notes / Reminders
1	Aug 20	Syllabus Review, Lab Safety, F.R. Teams, Introduction to Forensic Cases	Welcome Aug 17-25 Add/Drop period
2	Aug 27	Sample of Cold Cases. Case Analysis I, Delivery of information (Week 1 of analysis)	
3	Sep 3	Case Analysis I, Team work applying Forensic Reconstruction Methodology (Week 2 of analysis).	
4	Sep 10	Case Analysis I, Team work applying Forensic Reconstruction Methodology (Week 3 of analysis).	
5	Sep 17	1 st Midterm: Case Analysis I, Team presentations	Applying the F.R. Methodology in the case
6	Sep 24	Case Analysis II, delivery of information (Week 1 of analysis)	Chose the case, for final exam

Week	Date	Topics / Activity	Notes / Reminders
7	Oct 1	Case Analysis II, Team work applying Forensic Reconstruction Methodology (Week 2 of analysis).	Chose the case, for final exam
8	Oct 8	Case Analysis II, Team work applying Forensic Reconstruction Methodology (Week 3 of analysis).	Chose the case, for final exam
9	Oct 15	NO CLASS	Wellness week
10	Oct 22	Case Analysis II, Team work applying Forensic Reconstruction Methodology (Week 4 of analysis).	Oct 27 th , Spring Semester registration 90+ complete credits and students athletes (2027 SP) Chose the case, for final exam
11	Oct 29	2 nd Midterm: Case Analysis II, Team presentations. Applying the F.R. Methodology in the case	- Spring Semester registration 60+ complete credits (2027 SP) - Oct 29 th : Spring Semester registration 30+ complete credits and students athletes (2027 SP) -Oct 30 th , Spring Semester registration for all students (2027 SP)
12	Nov 5	Individual work for the final exam, chose the case, research and develop the PHD ETDC methodology for the individual final case presentation and report.	
13	Nov 12	Final Lab Exam: Individual Case Presentation I.	4 students, Mandatory attendance
14	Nov 19	Final Lab Exam: Individual Case Presentation II.	4 students, Mandatory attendance

Week	Date	Topics / Activity	Notes / Reminders
15	Nov 26	Holiday: Nov 26-27 Thanksgiving	No classes
16	Dec 3	Final Lab Exam: Individual Case Presentation III.	2 students, <i>Mandatory attendance</i>