



Course Syllabus

Chaminade University Honolulu

3140 Waiālae Avenue - Honolulu, HI 96816

www.chaminade.edu

Course Number: FS 460
Course Title: Forensic Taphonomy
Department Name: Forensic Sciences
School Name: Natural Sciences and Mathematics
Term: Fall 2024
Course Credits: 3
Class Meeting Days: Tuesday, Thursday
Class Meeting Hours: 11:30AM – 12:50PM
Class Location: 120 Eiben 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 my Google Calendar](#). My Office Hours are

Wednesdays 10:00am – 12:00pm
Thursdays 1:30pm – 4:00pm

You can also schedule a meeting outside of Office Hours. To do so, send an email to david.carter@chaminade.edu. Provide the reason for the meeting and a list of multiple dates and times that you are available to meet. I will schedule with you as soon as possible.

University Course Catalog Description

FS 460 Forensic Taphonomy (3)

Processes associated with the decomposition and preservation of organic materials with an emphasis placed on human remains. *Prerequisites:* CH 323/L. *Concurrent registration in FS 460L required.*

Course Learning Outcomes (CLO)

This class will teach you the importance of death and decomposition to our planet. You will also learn how nature, including human activity, affects decomposition and how decomposition can be used as physical evidence in medicolegal and criminal death investigation.

| Each student will finish this class with the ability to: | Program Learning Outcomes |
|--|---|
| Identify and define common postmortem decomposition processes. | 2. Use techniques for recognition, documentation, analysis, and interpretation of physical evidence |
| Identify and define the value of taphonomy to medicolegal death investigation. | 4. Communicate disciplinary knowledge to diverse audiences |
| Define the influence of environmental variables on taphonomy. | 2. Use techniques for recognition, documentation, analysis, and interpretation of physical evidence |

Credit Hour Policy

FS 460 Forensic Taphonomy is a three-credit hour course that requires a minimum of 135 hours of student engagement, per the official Credit Hour Policy. Students enrolled in FS 460 are expected to spend 37.5 hours in class, 15 hours building your Carcass Image Collection, and 8 hours studying for each exam. There will be an additional 51 hours of work required beyond what is listed here (course readings, homework assignments, glossary review), averaging 3.4 hours per week.

Required Learning Materials

This class requires the use of several learning materials, both electronic and physical. This class will be managed electronically through Canvas and Google. All learning materials will be provided.

Readings & Glossary

Your primary literature for this class is Carter et al. (2023), Dimaio and Molina (2021), Mann et al. (1990), and the Forensic Taphonomy Glossary:

- Carter DO, Orimoto A, Gutierrez CA, Ribéreau-Gayon A, Pecs EL, Perrault KA, Peterson AJL (2023) A synthesis of carcass decomposition studies conducted at a tropical (Aw) taphonomy facility: 2013 – 2022. *Forensic Science International: Synergy*. 7:100345.
- Dimaio VJM, Molina K (2021) Postmortem changes, time of death and identification. In: DiMaio VJM, Molina K, editors (2021) *DiMaio's Forensic Pathology*, 3rd ed. CRC Press: Boca Raton, FL, USA. pp. 15 – 37.
- Mann RW, Bass WM, Meadows L (1990) Time since death and decomposition of the human body: variables and observations in case and experimental field studies. *Journal of Forensic Sciences*. 35:103 – 111.

Canvas

Canvas will serve as the primary repository for university documents and your grade, which will be updated each week. Canvas will also be used for email communication.

Google Drive

You will receive a link to a shared Google Drive. This drive will be used to house larger files including publications, presentation files, images, and other files related to the class.

TENTATIVE SCHEDULE

| Week | Date | Subject | Notes |
|------|--------------|---|---|
| 1 | 20, 22 Aug | Syllabus and Roster Review Introduction to Taphonomy | |
| 2 | 27, 29 Aug | Medicolegal Death Investigation & Consulting Read Dimaio and Molina (2021) | |
| 3 | 3, 5 Sep | Stages of Decomposition | |
| 4 | 10, 12 Sep | Dimaio & Molina (2021) Quiz Factors that Regulate Decomposition | |
| 5 | 17, 19 Sep | Exam 1 Decomposition Site Preparation | |
| 6 | 24, 26 Sep | Visit Decomposition Site Read Mann et al. (1990) | Decomposition Study |
| 7 | 1, 3 Oct | Visit Decomposition Site | Decomposition Study |
| 8 | 8, 10 Oct | Arthropods & Insects Mann et al. (1990) Quiz | |
| 9 | 15, 17 Oct | Scavengers & Microbial Communities Asynchronous Class – Image Collection | Caparica 2024 Lisbon, Portugal |
| 10 | 22, 24 Oct | Asynchronous Classes – Image Collection Read Carter et al. (2023) | Caparica 2024 Lisbon, Portugal |
| 11 | 29, 31 Oct | Carter et al. (2023) Quiz Temperature, Moisture & Water | |
| 12 | 5, 7 Nov | Burial and Soils Built Environments | Image Collection Due |
| 13 | 12, 14 Nov | Exam 2 Identification of the Deceased | |
| 14 | 19, 21 Nov | Estimating Postmortem Interval Psychopomp | |
| 15 | 26, 28 Nov | Psychopomp Class Cancelled | Thanksgiving |
| 16 | 6 Dec | 8:30am – 10:30am | Finals Week |

Assessment & Assignments

All assignments in this class share a common characteristic: they require you to take a professional approach to your preparation. Being thorough and dedicated to do your best are crucial for success in this class. Any confirmed evidence of cheating will result in an F for the class.

Attendance

On time and prepared attendance is expected as a professional forensic scientist and it is expected here. You are expected to be in your seat by 11:30am. A total of 48 attendance points are possible – two points per class period. Tardy attendance will be documented and every two tardies will subtract two attendance points. Tardiness also includes leaving class while it is in session. Leaving class to address an emergency is always acceptable but, in those cases, you are expected to schedule a meeting with me to discuss the scenario and why it should be excused.

Exams

You will complete two exams related to the lecture and literature content. These exams will be delivered via Canvas and will be taken during a scheduled class period. These exams require you to study and arrive prepared – You are not allowed access to any class materials during exam time.

Literature Quizzes

You will complete three quizzes related to the required journal publications. Quizzes will be completed on paper during a scheduled class period. These quizzes require you to study and arrive prepared – You are not allowed access to any class materials are during quiz time.

Carcass Image Collection

Carcasses are everywhere, you probably just don't realize it. To foster your appreciation of carcass ubiquity, you must collect 25 images of carcasses that you have encountered during the semester.

Carcasses must be animals (e.g. mammals, birds, insects, reptiles, fish) and images can be captured using your smartphone. You will probably find most carcasses around your home or while you are outside. You must:

1. Identify each carcass to the best of your ability, e.g. Fish, Cockroach, Mynah
2. Document the location where you found it, e.g. Sunset Beach, Bathroom Floor, Kitchen Sink
3. Name files like this: Fish_Sunset Beach, Cockroach_Kitchen Floor, Bird_Kalihi Street
4. Upload image files to your Carcass Image Google folder

You will earn one point for the file and one point for correct file name format.

Psychopomp

Can a board game be an exam? I think we should find out. We will start development on a board game called Psychopomp. The object of the game is simple – you are an assistant to Hermes and, as a psychopomp, your job is to guide a decedent to the underworld. You will escort your decedent to the River Styx by traveling through the lands of decomposition.

Your job is to develop the profile for one decedent that will be completed in Google Docs. You will be provided some general information about your decedent to get started, then you are required to develop a decedent profile that includes the following information:

1. Name
2. Age
3. Sex
4. Ethnicity
5. Height
6. Weight
7. Place of Birth/Citizenship
8. Cause of Death
9. Manner of Death
10. Circumstances of Death Narrative

Your decedent profile is due before 10:30am Hawaii Time on 6 December 2024.

Grading

Grades in this class are calculated from the assignments using this scale:

| Activity | Points | |
|--------------------------|------------|-------------------------|
| Attendance | 48 | 2 points per class |
| Exams | 100 | 50 points per exam |
| Literature Quizzes | 30 | 10 points per quiz |
| Carcass Image Collection | 50 | 2 points per image |
| Psychopomp | 50 | 5 points per data field |
| Total | 278 | |

| Points | % | Letter Grade |
|-----------|----------|--------------|
| 278 – 249 | 100 – 90 | A |
| 248 – 221 | 89 – 80 | B |
| 220 – 194 | 79 – 70 | C |
| 193 – 166 | 69 – 60 | D |
| 165 – 0 | 59 – 0 | F |

All grades will be posted in Canvas within one week of submission/exam completion. Your grade will be kept current all semester. You are encouraged to contact me at [david.carter@chaminade.edu](mailto: 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.

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 'Ōlelo No'eau (Hawaiian proverbs) and Marianist core beliefs:

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; pela iho la ka nohana 'ohana ('Ōlelo No'eau 1200) Recognize others, be recognized, help others, be helped; such is a family relationship
4. Educate for Service, Justice, Peace and the Integrity of Creation (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

This class will focus on an education in the forensic sciences as an education in service, justice, and peace. This class will provide you with an opportunity to acquire an integral, quality set of skills that will help you to provide service, justice, and peace to the recently deceased and bereaved. You will also 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.

University Attendance Policy

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. **Unexcused absences may include (but are not limited to): work issues, travel, or illness without a doctor's note.** 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.

Academic Conduct Policy

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.

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.

Mobile Devices

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.

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

Credit Hour Policy

The unit of semester credit is defined as university-level credit that is awarded for the completion of coursework. One credit hour reflects the amount of work represented in the intended learning outcomes and verified by evidence of student achievement for those learning outcomes. Each credit hour earned at Chaminade University should result in 45 hours of engagement. This equates to one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester, 10-week term, or equivalent amount of work over a different amount of time. Direct instructor engagement and out-of-class work result in total student engagement time of 45 hours for one credit.

The minimum 45 hours of engagement per credit hour can be satisfied in fully online, internship, or other specialized courses through several means, including (a) regular online instruction or interaction with the faculty member and fellow students and (b) academic engagement through extensive reading, research, online discussion, online quizzes or exams; instruction, collaborative group work, internships, laboratory work, practica, studio work, and preparation of papers, presentations, or other forms of assessment. This policy is in accordance with federal regulations and regional accrediting agencies.

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