



Course Syllabus

Chaminade University Honolulu
3140 Waiialae Avenue - Honolulu, HI 96816
www.chaminade.edu

Course Number: FS 444

Course Title: Forensic Biology

Department Name: Forensic Sciences

School Name: Natural Sciences and Mathematics

Term: Spring 2024

Course Credits: 3

Class Meeting Days: Tues, Thurs

Class Meeting Hours: 1300-1430

Class Location: Kiefer Room 10



Instructor Name: Kari Inda

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Office Location: 207B Eiben Hall

Office Hours: Email kari.inda@chaminade.edu to make an appointment

University Course Catalog Description/Course Overview

A scientific examination of biological evidence. Includes examining the scientific basis of many types of biological evidence, applying scientific methods and interpretation of biological evidence.

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
5. Educate for adaptation and change

Native Hawaiian Values

Education is an integral value in both Marianist and Native Hawaiian culture. 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 ('Ōlelo 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 ('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

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

Course Learning Outcomes	PLO 1	PLO 2	PLO 3	PLO 4
1. Explain fundamental concepts of forensic biology	X	X	X	X
2. Discuss theory and limitations of forensic biology analyses		X	X	X
3. Communicate possible conclusions drawn from forensic biological (DNA) analyses	X	X	X	X
4. Understand the importance of quality assurance and quality control within the field of forensic biology			X	

Alignment of Natural Sciences Courses with Marianist and Hawaiian values of the University

The Natural Sciences Division provides an *integral, quality education*: sophisticated integrative course content taught by experienced, dedicated, and well-educated instructors.

- *We educate in family spirit* – every classroom is an *Ohana* and you can expect to be respected yet challenged in an environment that is supportive, inclusively by instructors who take the time to personally get to know and care for you.
- *We educate for service, justice and peace*, since many of the most pressing global issues (climate change, health inequity, poverty, justice) are those which science and technology investigate, establish ethical parameters for, and offer solutions to.
- *We educate for adaptation and change*. In science and technology, the only constant is change. Data, techniques, technologies, questions, interpretations and ethical landscapes are constantly evolving, and we teach students to thrive on this dynamic uncertainty.

The study of science and technology can be formative, exploring human creativity and potential in the development of technologies and scientific solutions, the opportunity to engage in the stewardship of the natural world, and the opportunity to promote social justice. We provide opportunities to engage with the problems that face Hawai'i and the Pacific region through the Natural Sciences curriculum, in particular, those centered around severe challenges in health, poverty, environmental resilience, and erosion of traditional culture. The Marianist Educational Values relate to Native Hawaiian ideas of *mana*, *na'auao*, *ohana*, *aloha* and *aina*. We intend for our Natural Sciences programs to be culturally-sustaining, rooted in our Hawaiian place, and centered on core values of *Mai'au*, be neat, prepared, careful in all we do; *Makawalu*, demonstrate foresight and planning; *'Ai*, sustain mind and body; *Pa`a Na`au*, learn deeply.

Course Prerequisites

Prerequisites: EN 102, COM 101, CH 204, FS 340.

Required Learning Materials

Forensic Biology by Richard Li

Course Website:

<https://chaminade.instructure.com/courses/29286>

Technical Assistance for Canvas Users:

- Search for help on specific topics or get tips in [Canvas Students](#)
- [Live chat with Canvas Support for students](#)
- Canvas Support Hotline for students: +1-833-209-6111
- Watch this [video to get you started](#)
- [Online tutorials](#): click on “Students” role to access tutorials
- Contact the Chaminade IT Helpdesk for technical issues: helpdesk@chaminade.edu or (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 TutorMe. Tutor Me can be accessed 24/7 from your Canvas account. Simply click Account – Notifications – TutorMe. For more information, please contact Kōkua ‘Ike at tutoring@chaminade.edu or 808-739-8305.

Assessment

Letter grades are given in all courses except those conducted on a credit/no credit basis. Grades are calculated from the student’s daily work, class participation, tests, term papers, reports and the final examination. They are interpreted as follows:

You are required to view all provided lecture recordings. You are also required to complete all assignments, quizzes and/or exams by the due date(s).

Activity	Percentage
Lab Visit Exercise	10%
Weekly Assignments	30%
Midterm	30%
Final Exam	30%
Total	100%

Letter Grade Scale

100% - 90%	A – Outstanding scholarship and an unusual degree of intellectual initiative
89% - 80%	B – Superior work done in a consistent and intellectual manner
79% - 70%	C – Average grade indicating a competent grasp of subject matter
69% - 60%	D – Inferior work of the lowest passing grade, not satisfactory for fulfillment of prerequisite course work
≤ 59%	F – Failed to grasp the minimum subject matter; no credit earned.

Course Policies

Late Work Policy

Work submitted after the specified due date/time will be deducted *20% of the final grade* per day thereafter. If Canvas is experiencing technical difficulties, work must be submitted via email to kari.ind@chaminade.edu as an attachment.

Grades of "Incomplete"

For information on an *Incomplete* grade, see page 138 of the current Academic Catalog (2022-23).

Writing Policy

We will utilize the APA writing format in this course.

Instructor and Student Communication

Questions for this course can be emailed to the instructor at kari.ind@chaminade.edu. Online, in-person and phone conferences can be arranged. Response time will vary between 1-2 days.

Cell phones, tablets, and laptops

Electronic devices are allowed for notetaking purposes only. No recording or photography is allowed during class unless permission is granted.

Disability Access

If you need individual accommodations to meet course outcomes because of a documented disability, please speak with me to discuss your needs as soon as possible so that we can ensure your full participation in class and fair assessment of your work. Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from Kōkua 'Ike: Center for Student Learning by the end of week three of the class, in order for instructors to plan accordingly. If a student would like to determine if they meet the criteria for accommodations, they should contact the Kōkua 'Ike Coordinator at (808) 739-8305 for further information (ada@chaminade.edu).

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

Attendance will not be counted toward your grade. However, all students should be familiar with, and abide by, the attendance policy as outlined in the current Academic Catalog (2022-23, page 196).

Students are expected to attend regularly all courses for which they are registered. Student 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. 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 Tutor 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.

Student Conduct Policy

Campus life is a unique situation requiring the full cooperation of each individual. For many, Chaminade is not only a school, but a home and a place of work as well. That makes it a community environment in which the actions of one students may directly affect other students. Therefore, each person must exercise a high degree of responsibility. Any community must have standards of conduct and rules 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 under Student Life.

For further information, [please refer to the Chaminade Catalogue](#).

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.

This is a three-credit hour course requiring 135 clock hours of student engagement, per the official CUH Credit Hour Policy. Students enrolled in this course are anticipated to spend 40 hours in class or engaged in online lecture/exercises, 2 hours each week contributing to assignments or lab practicums (30 hours). Ten hours will be allocated to studying for the midterm; 10 hours will be allocated to studying for the final exam. The remaining 45 hours will be allocated to reading the assigned material, researching topics, and performing other ancillary obligations, averaging to ~3 hours/week.

Tentative Schedule

DATE	WEEK	TOPIC	ASSIGNMENT	READING
1/9, 1/11	1	SYLLABUS AND INTRODUCTION TO FORENSIC BIO		CH 1-2
1/16, 1/18	2	OVERVIEW OF FORENSIC BIOLOGY DISCIPLINE	1	CH 3-4
1/23, 1/25	3	SEROLOGY	2	CH 4, 10-11
1/30, 2/1	4	IDENTIFICATION OF BIOLOGICAL EVIDENCE I	3	CH 12-14
2/6, 2/8	5	IDENTIFICATION OF BIOLOGICAL EVIDENCE II	4	CH 15-17
2/13, 2/15	6	LAB VISIT/ REVIEW SESSION		
2/20, 2/22	7	IN-CLASS MIDTERM		
2/27, 2/29	8	DNA EXTRACTION AND QUANTITATION	5	CH 5-6
3/5, 3/7	9	DNA AMPLIFICATION AND ELECTROPHORESIS	6	CH 7-8
3/12, 3/14	10	DETECTION METHODS AND STRs	7	CH 8-9, 20
3/19, 3/21	11	SPRING BREAK		
3/26, 3/28	12	LAB VISIT/PRACTICUM		
4/2, 4/4	13	DNA PROFILING (CH 20), STATISTICS (CH 25)	8	CH 20, 25
4/9, 4/11	14	DATABASES; QUALITY ASSURANCE AND DNA CHALLENGES	9	CH 24, 25, 26
4/16, 4/18	15	SNPS, MITOCHONDRIAL AND Y-STR PROFILING	10	CH 21, 22, 23
4/23, 4/25	16	REVIEW SESSION & STUDY PERIOD		
4/30		<u>FINAL EXAM - TUESDAY 1:15PM</u>		