

Course Syllabus: BI 321 Lecture Fall 2025

(AY 2025-2026)

[Chaminade University Honolulu](#)

3140 Waialae Avenue - Honolulu, HI 96816

Class time: Tuesday/Thurs 8:30-9:50

Classroom – Behavioral Sciences Building 102 Lecture

Instructor Information: Dr. Claire Wright, Ph.D.

Adjunct Professor, School of Natural Science and Mathematics

Professor, John A. Burns School of Medicine

Office: Kapiolani Medical Center for Women and Children, 816

Office Hours On zoom or in person. YOU WILL NEED TO EMAIL ME TO FIND A TIME.

Or email me and we will definitely find a time to meet to review your issues ckendal@hawaii.edu

Required Text

Kenneth V. Kardong, Vertebrates – Comparative Anatomy, Function, Evolution,

7th ed.,(or higher) McGraw Hill publishing

All other reading materials will be provided or sourced from free access on the internet.

You **NEED to READ** this book, please let me know if you are having issues getting a copy.

COURSE TITLE: BI-321 ADVANCED HUMAN AND COMPARATIVE VERTEBRATE ANATOMY

Course Description: Advanced survey of human gross anatomy and adaptation is used to explore comparative aspects of the developmental biology and adaptations of other vertebrate species. Concurrent registration in BI 321L required.

1. Learning Outcomes

Marianist Values –

Refer to your Canvas WELCOME learning module to see specifically how this class aligns with 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 ‘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 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.

Student Class Content Learning Outcomes		Linkage to Program Learning Outcomes
1) Understand how comparative anatomy is used to view/discern evolutionary relationships		PLO 4,5
2) Examine different vertebrates and their interactions with both the abiotic and biotic components of their environment		PLO 1,2,4,5,6
3) Understand the structural and physiological adaptations of representative vertebrate groups to their environments		PLO 1,2,4,5,6
4) Gain an appreciation of the structure-function relationships in representative vertebrates		PLO 1-6

Biology Program Learning Outcomes (PLO)

Upon completion of the B.S. degree program in Biology the student will demonstrate:

1. Apply the scientific method in the design and testing of hypotheses
2. Transform and display, statistically evaluate, validate, and interpret scientific data and communicate the results of such analyses effectively both orally and in writing
3. Acquire, summarize, and synthesize information from published scientific literature, databases and bioinformatics software to extract and interpret biological data
4. Recognize the chemical and physical principles that underlie all life forms, and the biological organization at the molecular, cellular, tissue, organ, organism, and system levels that emerge from these principles
5. Define the components and processes of genetic and epigenetic information transmission, and their determinant effects on the adaptive and evolutionary processes that they drive
6. Evaluate the etiology of major human disease burden in terms of, pathophysiological mechanisms, epidemiology within populations and possible therapeutic approaches
7. Integrate an awareness of bioethical issues to positively influence the application of science to service, justice and peace in the solution of societal problems.

Technical Assistance for Canvas: This information can also be found in the WELCOME MODULE in 'Instructions for using Technology in this class'.

- 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 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 TutorMe or Smarthinking. Tutor Me and Smarthinking can be accessed 24/7 from your Canvas account. Simply click Account – Notifications – TutorMe or Smarthinking. For more information, please contact Kōkua 'Ike at tutoring@chaminade.edu or 808-739-8305.

1. Course Elements

This course provides a comprehensive overview of human anatomy. It also reviews the evolution of the human body systems and compares this to all vertebrate groups. The germ line development, physical influences on morphology and function and the adaptation to environment and behavior are discussed in detail. Students are responsible for all text assignments, as well as supplementary handouts. Students are encouraged to **read ahead** to keep up with the high volume of material, do NOT underestimate how much this will help you in class!!!

1. Grading Scale

A Excellent >90%	450 points or more
B Good >80%	400 points
C Average >70%	350 points
D Below Average >60%	300 points
F Failure <60%	299 points or less

Assignments and Grading

Specific	Assignment Points.	% Of Grade Due Date
Attendance	25	5% Each week -semester long
Assignments	75	15% Each week semester long
Participation	75	15% Each week semester long
Semester exams	200	40% Four during semester
Final Exam	125	25% Final week of semester

Additional Departmental and University Policies

1. 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.

2. ADAA Statement

2.1 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.

3. 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).

4. Attendance & Tardiness

4.1 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 should make arrangements to complete their 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 Science and Mathematics - 1 (808) 440-4204). It is the instructor's prerogative to modify deadlines of course requirements accordingly.

Chaminade administrative withdrawal policy. If you miss two consecutive classes in an unexcused fashion (i.e. with prior email approval from me) then you will be withdrawn from the class.

2. Additional attendance requirements. No more than four classes may be missed across the whole semester. Failure to score at least 20 points on attendance will result in failure of the course.

4.2 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.

4.3. Tardiness

Reasons for tardiness should be explained to the instructor at the end of the class. Repeated tardiness may lead to a grade reduction for the course. Repeated unexcused tardiness may result in discussion with the instructor regarding the ability of the student to commit to the class.

5. Policy on Make-Up Tests

Makeup exams and quizzes are not given unless a student is ill and contacts the instructor within 24 hours of missed class period. A **doctor's written excuse** should be supplied at the NEXT class attended. Extra credit opportunities may be available during the course of regular lectures or may be written into the exams.

6. Policy on Communication

6.1 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.

Refer to the instructions in the WELCOME MODULE ON CANVAS – 'What should I expect from my Instructor?'

7. 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, and plagiarism, in addition to more obvious dishonesty.

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

For the most up to date information, please refer to the [Academic Honesty Policy](#) on the Chaminade University Catalog website.

Title IX and Nondiscrimination Statement

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.

Nondiscrimination Policy & Notice of Nondiscrimination

Chaminade University of Honolulu does not discriminate on the basis of sex and prohibits sex discrimination in any education program or activity that it operates, as required by Title IX and its regulations, including in admission and employment. Inquiries about Title IX 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 at the [Chaminade University Title IX Office Contact Information and Confidential Resources website](#). 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](#).

8. CUH Alert Emergency Notification

To get the latest emergency communication from Chaminade University, students’ cell numbers will be connected to Chaminade’s emergency notification text system. When you log in to the Chaminade portal, you will be asked to provide some emergency contact information. If you provide a cellphone number, you will receive a text from our

emergency notification system asking you to confirm your number. You must respond to that message to complete your registration and get emergency notifications on your phone.

9. Assessment for Student Work

With the goal of continuing to improve the quality of educational services offered to students, Chaminade University conducts assessments of student achievement of course, program, and institutional learning outcomes. Student work is used anonymously as the basis of these assessments, and the work you do in this course may be used in these assessment efforts.

10. Student with Disabilities Statement

Chaminade University of Honolulu offers accommodations for all actively enrolled students with disabilities in compliance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, and the ADA Amendments Act (2008).

Students are responsible for contacting Kokua Ike: Center for Student Learning to schedule an appointment. Verification of their disability will be requested through appropriate documentation and once received it will take up to approximately 2–3 weeks to review them. Appropriate paperwork will be completed by the student before notification will be sent out to their instructors. Accommodation paperwork will not be automatically sent out to instructors each semester, as the student is responsible to notify Kokua Ike via email at ada@chaminade.edu each semester if changes or notifications are needed.

11. Kōkua ‘Ike: Tutoring & Learning 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 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 on Account > TutorMe. For more information, please contact Kōkua ‘Ike at tutoring@chaminade.edu or 808-739-8305.

The instructor may modify elements of this syllabus according to the operational needs of the class. Please keep on track of changes given the fluctuating pandemic restrictions.

Tentative Course Outline: Every effort has been made to ensure that the material in this syllabus is accurate and complete. The instructor reserves the right to make any changes in the contents of this syllabus that she deems necessary or desirable.

Week	Class Date	Topic	Assignments
1	8/26	Welcome and reminder of Phylogenetics	1. Reading: Chapter 1 and 2 of Text book 2. Canvas modules to review: a. Welcome module 3. Week 1 (in Fish Module)
1	8/28	Chordates	Welcome Video Assignment
2	9/2	Vertebrates	1. Reading: Chapters 3 and 5 2. Canvas modules to review: Week 2
2	9/4	Life History	Week 2 assignment
3	9/7	Exam 1 (Chapters 1-5)	Lets see how you do exam.
3	9/9	Integument	1. Reading: Chapter 6 2. Canvas module to review: Week 3 3. Week 3 assignment
3	9/11	Integument	Keep reviewing Chapt 6
4	9/16	Introduction to bone and the skeletal system	1. Reading: Parts of Chapt 4/5 2. Canvas module Week 4
4	9/18	Skulls	1. Reading: Chapter 7 2. Canvas module Week 5
5	9/23	Axial System	1. Reading Chapter 8 2. Week 5 assignment
5	9/25	Appendicular System	1. Reading: Chapter 9 2. Canvas module Week 6
6	9/30	Exam 2 (Chapters 6-9)	Did you now do better?
6	10/2	Muscles	1. Reading: Chapter 10 2. Canvas module: Week 7

7	10/7	Muscles part II	1. Week 7 assignment
7	10/9	Respiratory System	1. Reading: Chapter 11 2. Canvas module: Week 8
8	10/14	Respiration part II	Week 8 assignment
8	10/16	Exam 3 Independent Review	
9	10/21	Exam 3 (Chapters 10-11)	
9	10/23	Cardiovascular System	1. Reading: Chapter 12 2. Canvas module: Week 9
10	10/28	Digestion	1. Reading: Chapter 13 2. Canvas module: Week 10 3. Week 10 assignment
10	10/30	Digestion part II	1. Remainder of chapter 13 2. Week 10 assignment
11	11/3	Kidneys - Nitrogenous waste	1. Reading: Chapter 14 2. Canvas module: Week 12
11	11/6	Genitals - Reproduction	1. Reading: Chapter 14 2. Week 11 assignment
12	11/11	Veterans Day - NO CLASS	
12	11/13	Endocrine System	1. Reading: Chapter 15 2. Canvas module: Week 13
13	11/18	Exam 4 review/any catch up	Chapters 12, 13, 14 and 15
13	11/20	Exam 4	Chapters 12, 13, 14 and 15
14	11/25	Sensory Systems	Chapts 16 and 17
14	11/27	Thanksgiving - NO CLASS	
15	12/2	Course Review	
15	12/4	Exam Practice	
16	12/8-11	Finals Week - cumulative exam	