



School of Natural Sciences and Mathematics

Biology

BI 151: Human Anatomy and Physiology I

Sue Wesselkamper Science Center, Lecture Hall 120 | MWF 9:30–10:20 am | Credits: 3 | Section: 05 | Term: Fall 2026

Instructor Information

Instructor	Michael Weichhaus, Ph.D.
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Office Location	Sue Wesselkamper Science Center, Room 107
Office Hours	MWF 12:00–2:00 pm and TR 1:00–2:00 pm — by sign-up (see below)
Virtual Office	Google Meet — book at https://calendar.app.google/6x3kd3fb4F6yMmvUA
Virtual Office Hours	Same slots as above. When you book, choose whether to meet in person or online.

Communication

Office hours run on a sign-up system so you never queue and never find me already with somebody else. Book a slot at <https://calendar.app.google/6x3kd3fb4F6yMmvUA> and choose, at the time of booking, whether you would like to meet in my office or online via Google Meet. Slots are available Monday, Wednesday and Friday from 12:00 to 2:00 pm, and Tuesday and Thursday from 1:00 to 2:00 pm. If none of those times work for you, email me and we will find one that does. For anything shorter than a conversation, email or the Canvas Inbox is best — please allow up to 24 hours for a reply on weekdays, and longer over a weekend.

School & Department

School	School of Natural Sciences and Mathematics
Location	Sue Wesselkamper Science Center, Room 115
Phone	(808) 440-4204
Questions?	Contact your instructor or the School of Natural Sciences and Mathematics

Course Description & Materials

Catalog Description

Human Anatomy and Physiology I (BI 151) is an introduction to the human anatomy and physiological systems. Necessary life functions and survival needs will be examined, followed by an orientation to the language of anatomy. Thorough analyses of intracellular function, tissue types, the integumentary system, skeletal tissue and the human skeleton, joints, muscle tissue and the muscular system, the fundamentals of nervous tissue, and the nervous system will follow. Required course for nursing majors. Non-nursing students (e.g. pre-health professions students) may take this course subject to availability of seats in a separate course section than nursing majors.

Co-requisites: BI 151L (Human Anatomy and Physiology I Laboratory). Restricted to Nursing majors; other students by seat availability.

Course Snapshot

Modality	Face-to-Face
Meeting Location	Sue Wesselkamper Science Center, Lecture Hall 120
Meeting Days/Times	MWF 9:30–10:20 am
Time Commitment	<i>This is a three-credit course requiring 135 clock hours of student engagement, per the CUH credit hour policy: approximately 37.5 hours in class, 50 hours studying for and taking the five term exams, 20 hours for the cumulative final, and a further 27.5 hours of reading, Canvas discussions and independent study. Expect roughly 9 hours per week.</i>
Required Materials	<i>Martini, Nath & Bartholomew, Fundamentals of Anatomy & Physiology, 12th edition (ISBN-13: 9780137854011, 2023 update). The textbook is the only required purchase for this course — there is no separate online homework platform to buy.</i>
Recommended Items	<i>A Guide to Anatomy and Physiology (Rust); Color Atlas of Human Anatomy (McMinn); an anatomy and physiology colouring atlas; Netter's Anatomy Flashcards or an equivalent app.</i>
Canvas	Everything for this course lives in Canvas at chaminade.instructure.com . There is one module per week, and inside it one page per class meeting — so if you miss a Wednesday, open Wednesday and you will find the lecture outline, both activities and the worksheet. Announcements, the weekly discussions and your grades are all there too.

Learning Outcomes

Program Learning Outcomes (PLOs)

Upon completion of the undergraduate B.S. program in Nursing, students will be able to:

1. Utilize the nursing process to advocate for safe, holistic, patient-centered care across the lifespan, incorporating the Marianist value of service, justice and peace.
2. Apply leadership and communication skills to ensure quality, collaborative, and continuous patient care.
3. Integrate credible research with clinical expertise and patient preferences for optimal care across the lifespan.
4. Incorporate informatics and healthcare technologies into the practice of professional nursing.
5. Contribute to the safety and quality improvement of the healthcare environment.

Course Learning Outcomes (CLOs)

Upon completion of BI 151, the student will be able to:

1. Create graphs depicting selected anatomical or physiological data.
2. Describe the scientific method and apply it to the study of human anatomy and physiology.
3. Demonstrate practical knowledge of human gross and microscopic anatomy.
4. Define and correctly use anatomical terminology to explain the physiology of the major organ systems.
5. Identify structures in the body and analyze their relationship with other body structures.
6. Describe the processes involved with maintaining homeostasis and anticipate what may occur when homeostatic balance mechanisms are lost.
7. Describe disease states, both genetic and acquired etiologies, and their current medical treatments.

Marianist Values

An education in the Marianist Tradition is marked by five principles. Reflect on how this course relates to one or more:

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.

This course sits most directly under Provide an integral, quality education (Na'auao) — “acquire skill and make it deep.” Anatomy and physiology rewards depth over coverage: a student who can explain why blood calcium is held between 8.5 and 10.5 mg/dL understands something that a student who has memorised the number does not, and only the first of them will recognise a patient in trouble. The course is also built around Educate in family spirit ('Ohana): every class period includes group work in which you are asked to defend an answer to your classmates rather than simply produce one, and the graded discussions are built on being questioned and questioning back. Finally, for students heading into nursing, this material is where Educate for service, justice and peace (Aloha) becomes concrete — the physiology you learn here is what will let you notice, and act on, what is happening to a patient who cannot tell you themselves.

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

Course Learning Outcome	Nursing PLOs	Marianist Value	Native Hawaiian Value
CLO 1 — Create graphs of physiological data	PLO 3, PLO 4	Integral, quality education	Na'auao
CLO 2 — Scientific method applied to A&P	PLO 3	Integral, quality education	Na'auao
CLO 3 — Practical knowledge of gross and microscopic anatomy	PLO 1	Integral, quality education	Na'auao
CLO 4 — Use anatomical terminology to explain physiology	PLO 1, PLO 2	Educate in family spirit	'Ohana
CLO 5 — Identify structures and analyze their relationships	PLO 1	Integral, quality education	Na'auao
CLO 6 — Homeostasis, and what happens when it is lost	PLO 1, PLO 5	Service, justice and peace	Aloha
CLO 7 — Disease states, etiologies and treatments	PLO 1, PLO 3, PLO 5	Service, justice and peace	Aloha

Attendance & In-Class Participation

Attendance Policy

Students are expected to attend every class meeting. Chaminade's policy applies: unexcused absences equivalent to more than one week of classes may lead to a grade reduction, and any unexcused absence of two consecutive weeks or more may result in being withdrawn from the course. A student who stops attending without officially withdrawing may receive a failing grade. If illness or another circumstance prevents you from attending, email me — before class where possible — and we will make arrangements. Students with accommodations from Kokua 'Ike may be considered for exceptions where the accommodation does not alter an essential requirement of the course. This course is worth attending for a specific reason: two-thirds of every period is individual and group work, and that work is where the exam questions come from. It cannot be copied from a classmate's notes afterwards.

Quick Reference — Absence Thresholds

Excused Absence	<i>Illness, family emergency, or a University-sponsored activity. Notify me before class where possible, and be ready to document it if asked. Excused absences carry no penalty, but you are still responsible for the work missed.</i>
Unexcused Absence	<i>Any absence not arranged with me beforehand and not documented afterwards.</i>
Warning Threshold	<i>More than 2 unexcused absences — I will contact you so we can sort out what is going on before it affects your grade.</i>
Grade Penalty	<i>More than 4 unexcused absences (more than one week of class) — final grade lowered by one letter.</i>
Course Failure	<i>More than 6 unexcused absences, or two consecutive weeks of unexcused absence — you may be withdrawn from the course or receive a failing grade.</i>
Late Arrival / Early Departure	<i>Arriving more than 10 minutes late, or leaving before the end, counts as a tardy. Two tardies count as one absence. The individual and group blocks run in the second half of the period, so leaving early means missing the part that matters most.</i>

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.

In-class work is not graded directly and carries no points of its own. It is, however, where the exam questions come from: the figures you label in the individual block are the figures the hot-spot questions use, and the mechanisms you argue through in the group block are what the essay questions ask you to explain. Worksheets are collected at random and marked only for having been attempted, never for being correct. Graded participation in this course lives in the Canvas discussions, which are worth 15% of your final grade.

Course Activities

In-Class Activities	<i>Every class period is divided into three blocks of about fifteen minutes: a short lecture, then individual work on paper in silence, then group work in assigned groups of three or four. The individual block always comes first, so that you commit to your own answer before the discussion starts. Groups are assigned and rotate through the semester.</i>
Homework / Assignments	<i>There is no separately graded homework in this course, and no online homework platform to buy. Your independent work is reading the assigned chapter before class, completing the daily worksheet, and working through the figure sets and animations posted in each week's Canvas module. None of it is collected for marks — but it is where the exam questions come from.</i>
Quizzes / Exams	<i>Five term exams (12% each) and one cumulative final (25%), all taken in class through Canvas New Quizzes with a lockdown browser and an access code given at the start of the period. Term exams are 27 questions in 50 minutes; the final is 54 questions in two hours. Fewer than a third of the questions are multiple choice — the rest require you to produce an answer, label a structure, order a sequence, or write. A study guide for every exam is posted in Canvas.</i>
Projects	<i>There is no separate project. In its place, fifteen weekly Canvas discussions run across the semester (13% of your grade in total). Seven of these are graded role-play discussions in which you explain how an organ system maintains homeostasis and I reply with follow-up questions that you are expected to answer — most of the marks are in that exchange, not in the first post. The other eight are ungraded and exist so you can say what is confusing you at no cost.</i>

Course Policies

Late Work	<i>Discussion posts are due on the date given in Canvas. If you cannot make a due date, talk to me before it passes and an extension is usually straightforward. Unexcused late work receives a reduced grade. Graded discussions are a special case: because the marks depend on a back-and-forth exchange with me, a post made after the due date cannot earn the engagement marks no matter how good it is — post early in the week.</i>
Make-Up Work	<i>Exams are taken in class on the scheduled date. A missed exam can only be made up where the absence was excused and you contacted me as soon as you reasonably could — ideally beforehand. Make-up exams may differ in format from the original. In-class individual and group work cannot be made up, because it depends on the room; if you miss a class, the day's page in Canvas tells you exactly what we did and the worksheet is posted there.</i>
Extra Credit	<i>No extra credit is offered in this course. The points are in the work described above, and they are available to everyone from week one.</i>
Incomplete Grade	<i>An incomplete may be negotiated where specific circumstances justify it. The "I" is submitted with the alternative grade that will be assigned automatically after 90 days (IB, IC, ID or IF; a bare "I" defaults to F). Outstanding work must be completed within 90 days of the end of the term, and this limit cannot be extended.</i>
Syllabus Changes	<i>The instructor reserves the right to modify this syllabus. Changes will be announced in class and posted to Canvas.</i>

Final Grades

Your final grade is calculated from weighted categories rather than raw points. Canvas is configured with exactly these weights, so the grade you see in Canvas is your grade.

Component	Weight
Exam 1 (chapters 1–3)	12%
Exam 2 (chapters 4–6)	12%
Exam 3 (chapters 7–9)	12%
Exam 4 (chapters 10–11)	12%
Exam 5 (chapters 12–14)	12%
Canvas discussions (7 graded role-plays)	15%
Final exam (cumulative, plus chapters 15–16)	25%
Total	100%

Grade	Range
A	90% and above
B	80–89%
C	70–79%
D	60–69%
F	59% and below

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.

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

Resource	Description	Contact / Website
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/
Hazing Prevention	Confidential support, crisis intervention, and reporting for any type of abuse including hazing.	hazingpreventionnetwork.org/athlete-helpline/
Campus Safety / SafeWords	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.

Wk of	Theme	Topics / Readings	Due Dates
Aug 17	Getting oriented	Course overview (Mon). Ch 1: levels of organization, the language of anatomy, body cavities, feedback	Introduce Yourself; Wk 1 review discussion (Sun 23 Aug)
Aug 24	Chemistry that matters	Ch 2: bonds, water, pH and buffers, organic molecules, ATP	Wk 2 review discussion (Sun 30 Aug)
Aug 31	The cell and its membrane	Ch 3: membrane structure, passive and active transport, organelles, protein synthesis	Wk 3 Socratic discussion — GRADED (Sun 6 Sep)
Sep 7	Finishing the cell; Exam 1	Ch 3: cell cycle and mitosis. Labor Day Mon 7 Sep — no class	Wk 4 discussion (Wed 9 Sep). EXAM 1 — Fri 11 Sep
Sep 14	Tissues	Ch 4: epithelial, connective, muscle and neural tissue; membranes; inflammation and repair	Wk 5 Socratic discussion — GRADED (Sun 20 Sep)

Wk of	Theme	Topics / Readings	Due Dates
Sep 21	Skin, and the beginning of bone	Ch 5: epidermis, dermis, thermoregulation. Ch 6: bone tissue and the bone cells	Wk 6 Socratic discussion — GRADED (Sun 27 Sep)
Sep 28	Calcium and bone; Exam 2	Ch 6: ossification, growth, calcium homeostasis, fracture repair	Wk 7 discussion (Wed 30 Sep). EXAM 2 — Fri 2 Oct
Oct 5	The axial skeleton	Ch 7: cranium, facial bones, orbits and sinuses, vertebral column, thoracic cage	Wk 8 Socratic discussion — GRADED (Sun 11 Oct)
Oct 12	FALL BREAK — no class	—	—
Oct 19	The appendicular skeleton	Ch 8: pectoral girdle and upper limb, pelvic girdle and lower limb, lifespan changes	Wk 9 Socratic discussion — GRADED (Sun 25 Oct)
Oct 26	Joints; Exam 3	Ch 9: joint classification, synovial joints, movement terminology	Wk 10 discussion (Wed 28 Oct). EXAM 3 — Fri 30 Oct
Nov 2	Muscle	Ch 10: sarcomere, neuromuscular junction, cross-bridge cycle, fibre types. Ch 11: muscle naming, levers, major muscles	Wk 11 Socratic discussion — GRADED (Sun 8 Nov)
Nov 9	Nervous tissue begins; Exam 4	Ch 12: nervous system organization, neurons, neuroglia. Veterans Day Wed 11 Nov — no class	Wk 12 discussion (Tue 10 Nov). EXAM 4 — Fri 13 Nov
Nov 16	Action potentials, synapses, reflexes	Ch 12: membrane potential, action potential, the synapse. Ch 13: spinal cord, spinal nerves, reflexes	Wk 13 Socratic discussion — GRADED (Sun 22 Nov)
Nov 23	The brain; Exam 5	Ch 14: brain regions, ventricles and CSF, cranial nerves. Thanksgiving Thu 26–Fri 27 Nov — no class	EXAM 5 — Wed 25 Nov
Nov 30	Sensation and the autonomic system	Ch 15: receptors, adaptation, sensory pathways, referred pain. Ch 16: the autonomic divisions, higher-order functions	Wk 15 discussion (Sun 6 Dec). No exams or due dates this week
Dec 7	FINAL EXAM WEEK	Cumulative, plus Ch 15–16 which are examined only here	FINAL EXAM — Thu 10 Dec, 1:15–3:15 pm